Contents

Please note that the images used in this guide have been taken from existing instances of the software and are used for the purpose of illustration only and may therefore contain variations in content, layout or labelling from the current version of the software.

Introduction

Arches for HERs is a new platform for Historic Environment Records (HERs) which incorporates both an inventory system as well as a new heritage management tool: the Consultations resource model.

Arches is an open source software platform and freely available to cultural heritage organizations for recording and managing the historic environment, Arches was developed jointly by the Getty Conservation Institute (GCI) and World Monuments Fund (WMF) for independent deployment by any cultural heritage institution. Institutions that deploy Arches can create digital inventories that describe types, locations, extent, cultural periods, materials, and conditions of heritage resources and define the numerous and complex relationships among those resources. Each subject

or theme has its own Resource Model - an environment dedicated to its recording equipped with subject-specific terminologies and attributes. These Respource Models are:

Activity 	Used to record events relating to a particular Heritage Resource. Activities can be used to give context and meaning to the records of monuments or areas. They provide information on 'how we know what we know' (for example investigative activities or research and analysis) or on how a particular Monument or Area has been managed through time (management activities).
Application Area 	An area of land which is subject to a planning application and as such may have an impact on the historic environment or the setting of monuments.
Area 	Used to record complex human-made, or human conceived, sites, areas or landscapes. Areas can be anything from a simple prehistoric settlement site (evidenced by a few flint-working fragments) to large-scale, urban conservation areas incorporating multiple assets within a city. The use of Area or Monument will be a question of granularity.
Artefact 	Defines information relating to the character of man made items of heritage significance as identified by the Portable Antiquities Scheme
Bibliographic Source 	Covers documentation of references to bibliographic sources of information held outside of the information system.
Digital Object 	Used to record 'born digital' files, images and documents which provide information relating to a resource.
Heritage Story 	Used to record thematic stories (usually associated with an historic event or period) which can provide more detailed background to the monuments, areas and artefact. The Heritage Story creates a user-friendly story which helps place the assets in their context within the historic environment.

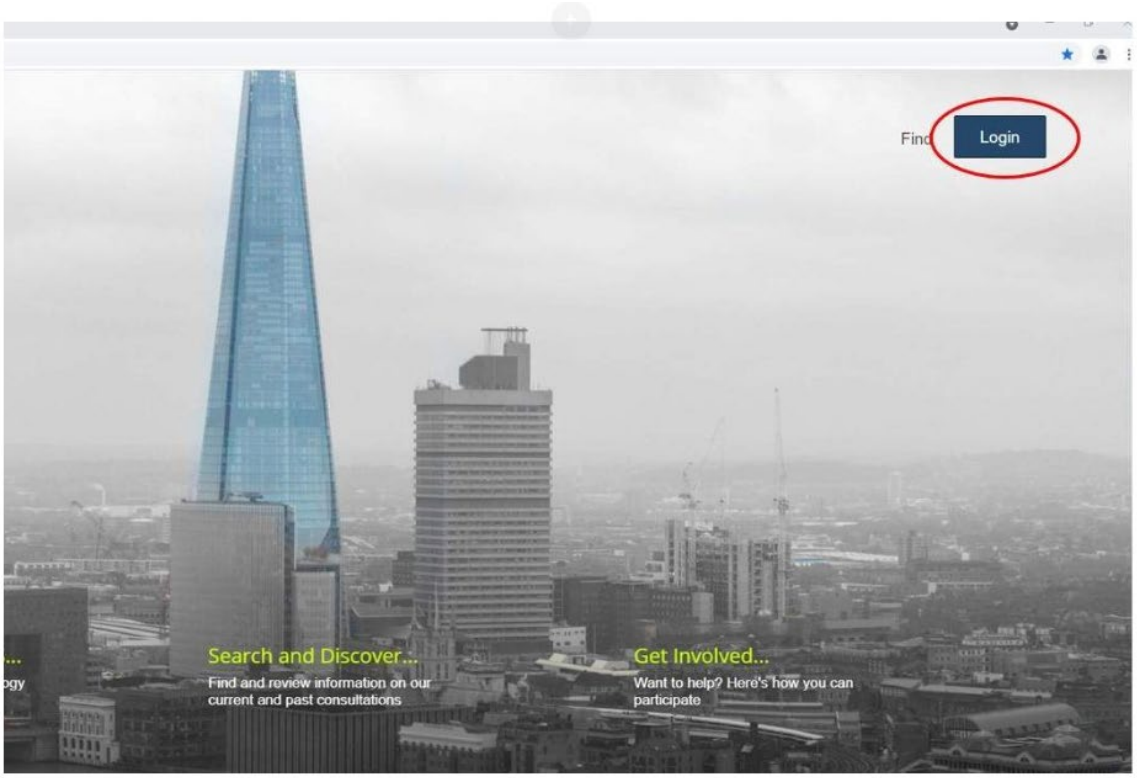
Historic Aircraft 	Used to record the details of historic aircraft which are either retained as monuments (eg. Museum exhibits or Gate Guardians) or have been identified through the discovery of associated crash sites. A monument record should be created for the crash site where known.
Historic Landscape Characterization 	Used to record areas of the historic landscape. Historic Landscape Characterization is a method of identifying and interpreting the varying historic character within an area that looks beyond individual monuments as it brings together an understanding of the whole landscape and townscape.
Maritime Vessel 	Used to record the details of historic vessels which are either retained as monuments (eg. Museum Ships or Memorials) or have been identified through the discovery of associated wreck sites. A Monument record should be created for the wreck site where known.
Monument 	Used to record built works, human-made structures and human-modified features. These can range from a single post box to a palace complex. The use of Monument or Area will be a question of granularity.
Organization 	Used to describe a group, institution or organization associated with a heritage resource. Organizations can either be current (eg. owners, developers etc) or historic (eg. former companies, regiments etc.).
Period 	Used to record the details of historic and cultural periods which a heritage resource may be associated with. A period is a spatio-temporal extent.
Person 	Used to describe individuals associated with a heritage resource. A person can either be current (eg. owners, developers etc) or a person of historic interest (eg. an author who formerly lived in a heritage resource).
Place 	Used to record places as resources.

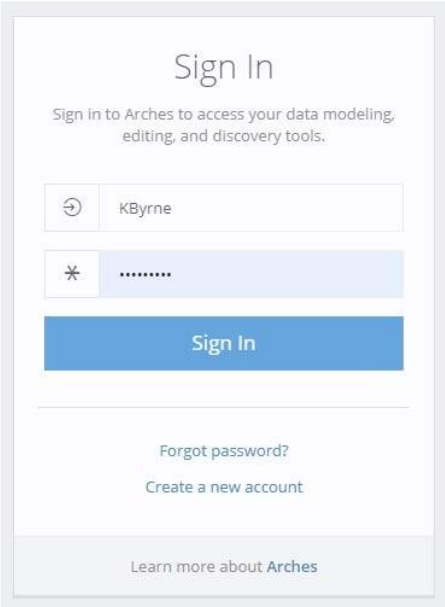
Accessing the application (for Reviewers/Editors)

Note: Arches for HERs works best on Firefox or Google Chrome. The use of Internet Explorer or Edge may impede functionality.

Login to the web-based Arches for HERs via the appropriate instance URL .

Select ‘Login’ in the top right-hand corner of the page



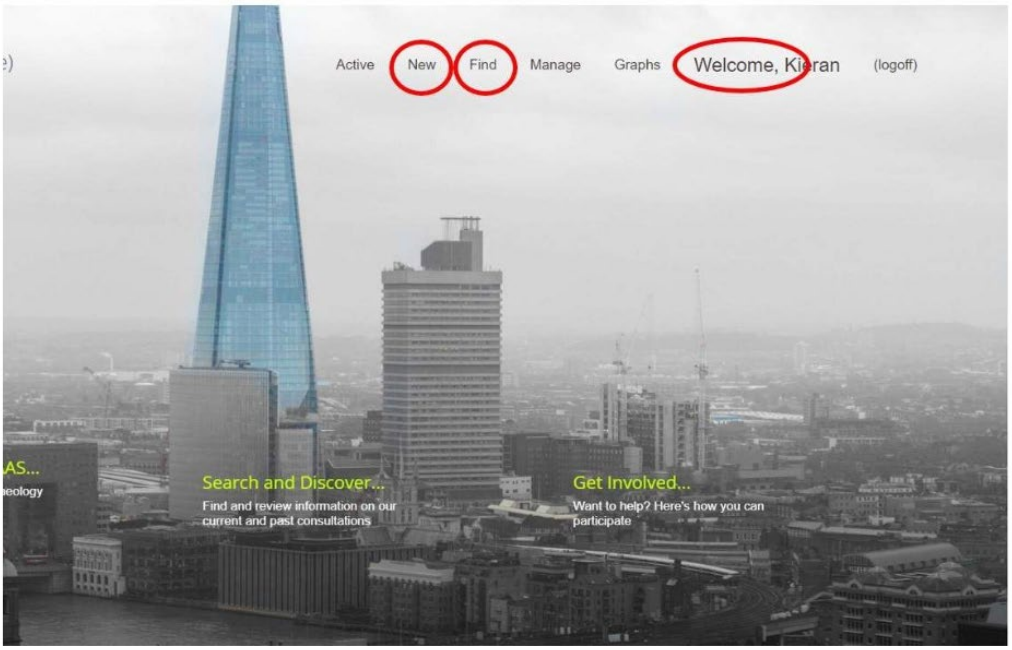


Enter your login details and select ‘Sign In’

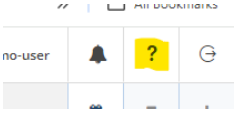
The landing page will reappear with additional options available to you, depending upon which roles have been assigned to your user account.

To create a new resource without first searching the database, select *New*.

To retrieve data using one of several search options available, select *Find*.



Access to your User Profile, where you can change your contact details and password, can be gained by selecting the ***Welcome ...*** option.

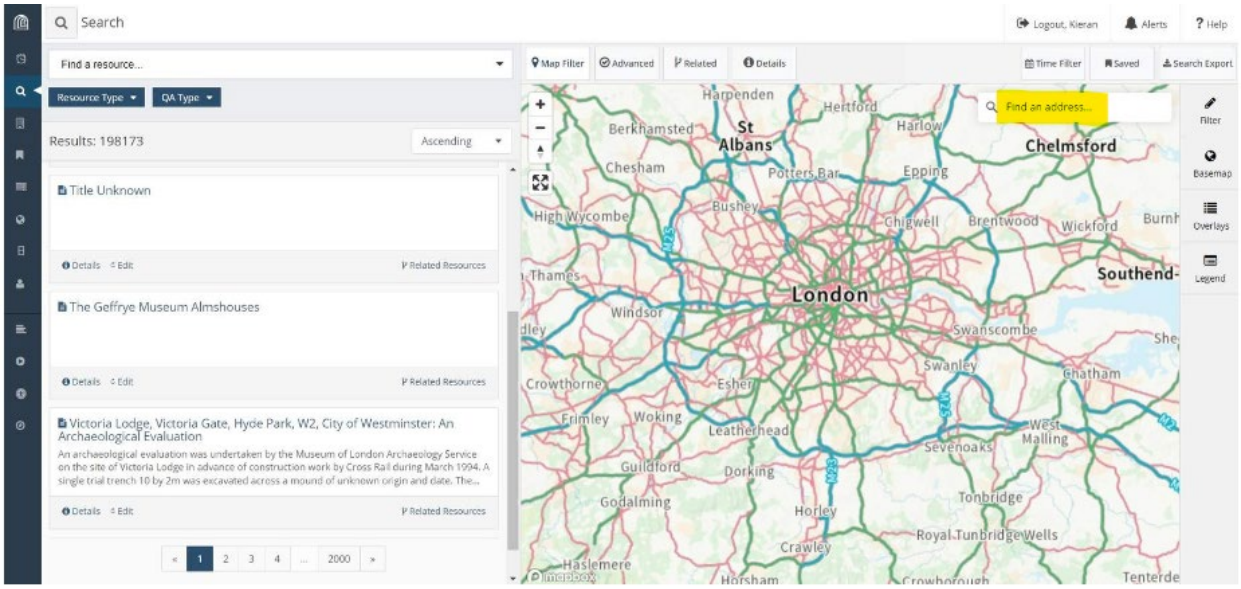


Note: Help and guidance are available via the **?Help** icon in the user interface. Please note that illustrations in this guidance may represent previous versions of the software.

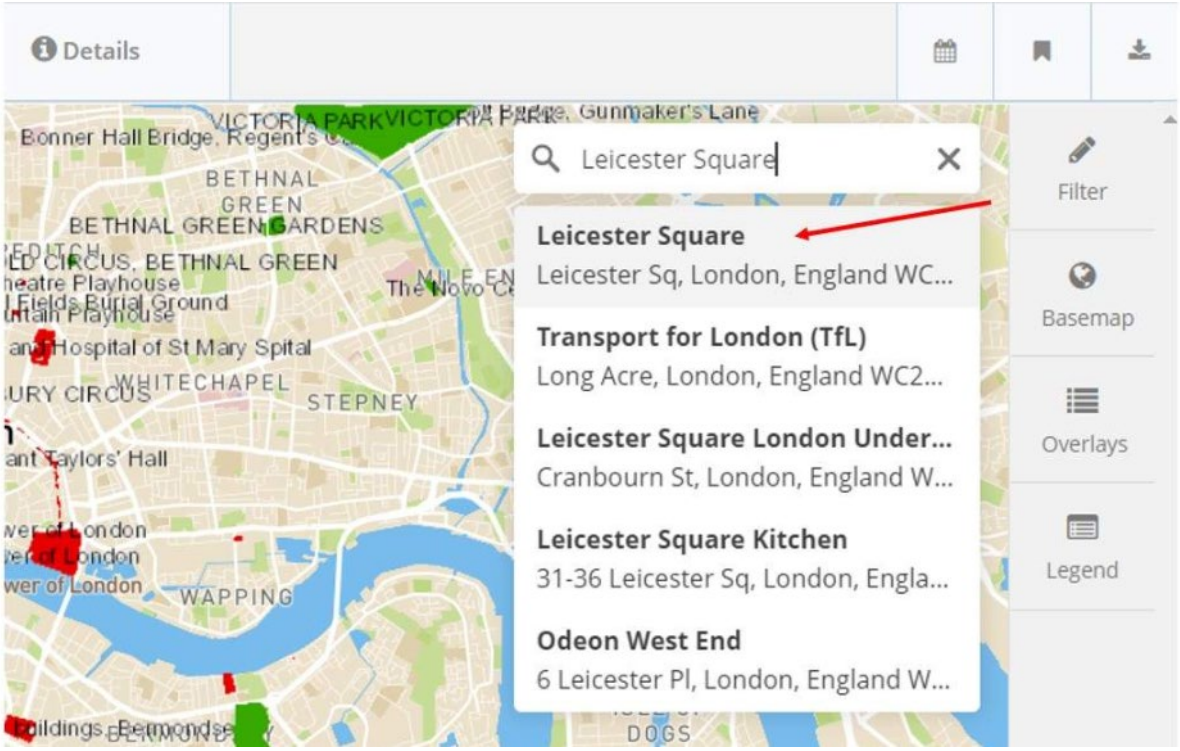
Map Search

Please note that the basemaps, layers and features pictured below are only representative of the applications used in the compilation of this guide and appear here for illustrative purposes only.

The Map Display is equipped with a ***Find an address...*** box in the top right-hand corner.



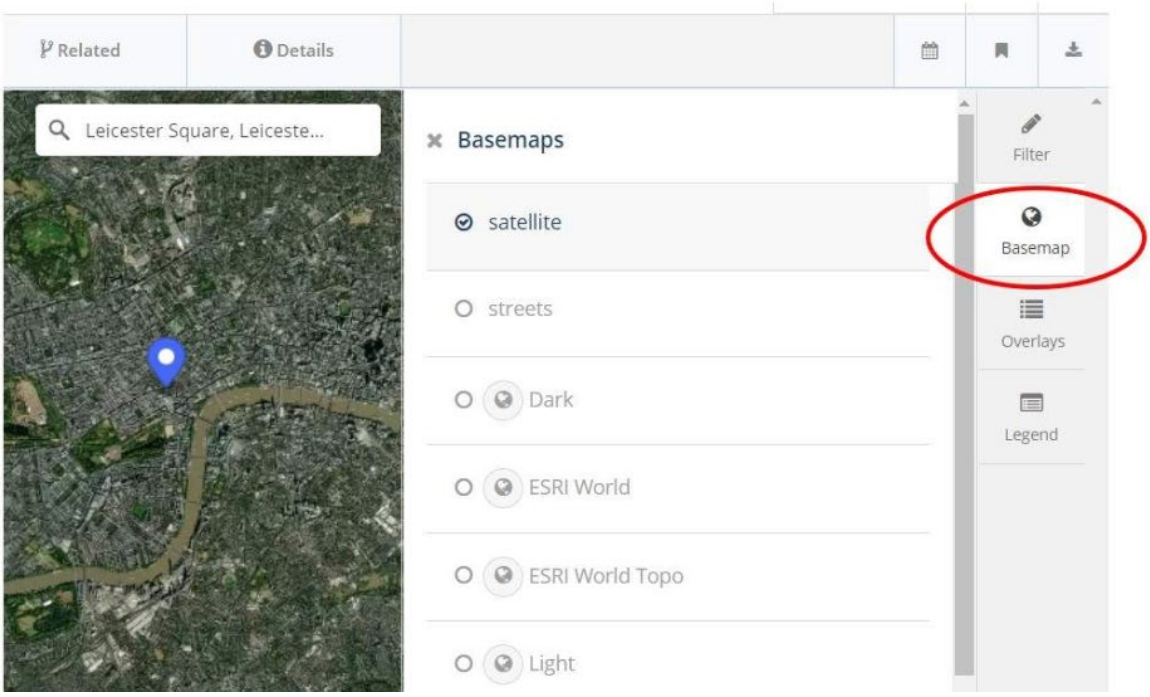
Insert a place name, part of an address, a Post Code etc. A list of matching locations will be displayed.



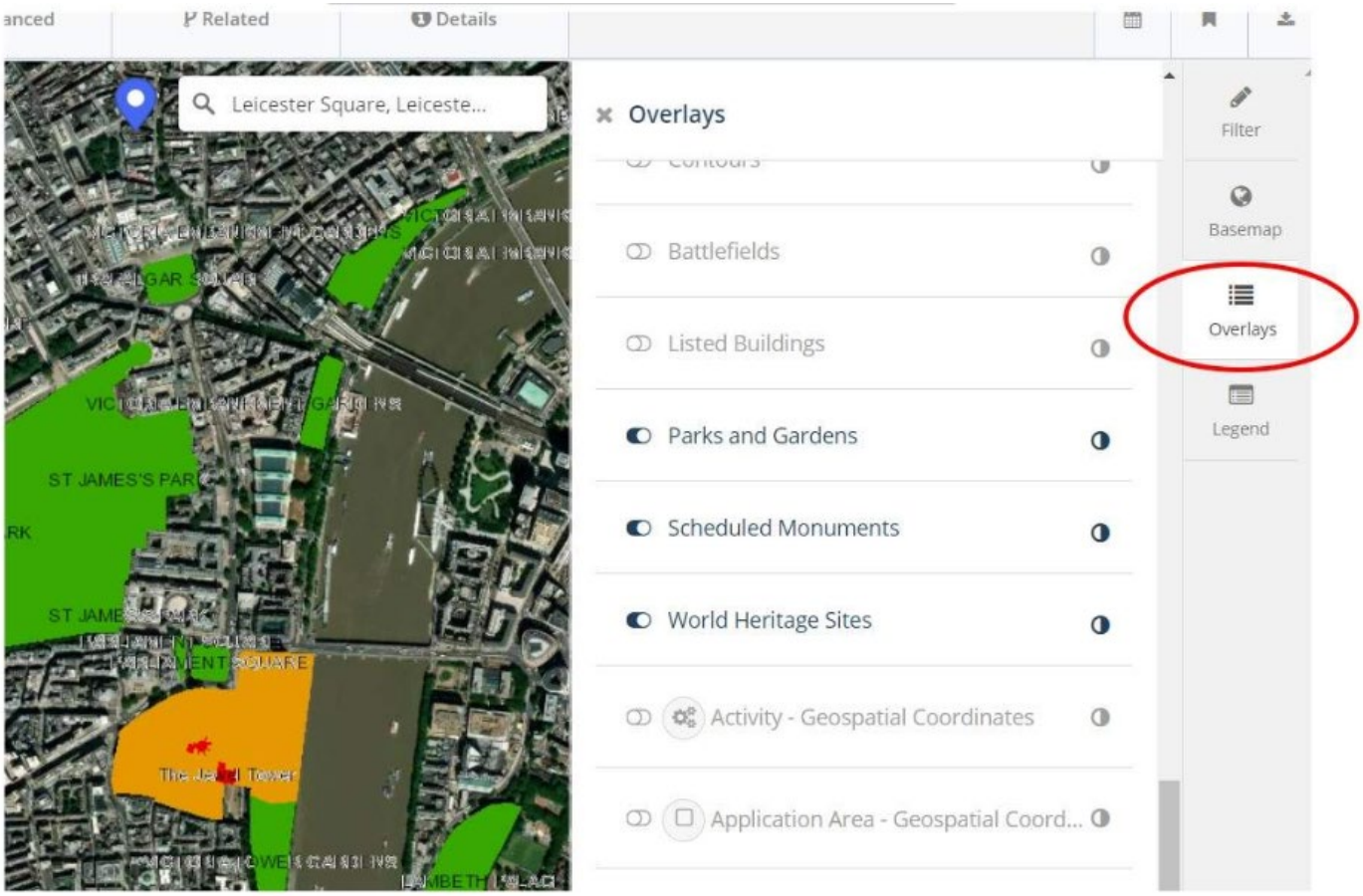
Select a location and the Map Display will zoom to the selected location.

The appearance of the map interface and the data displayed can be customised by the user. On the right of the interface are control panels for selecting the Basemap and Overlays.

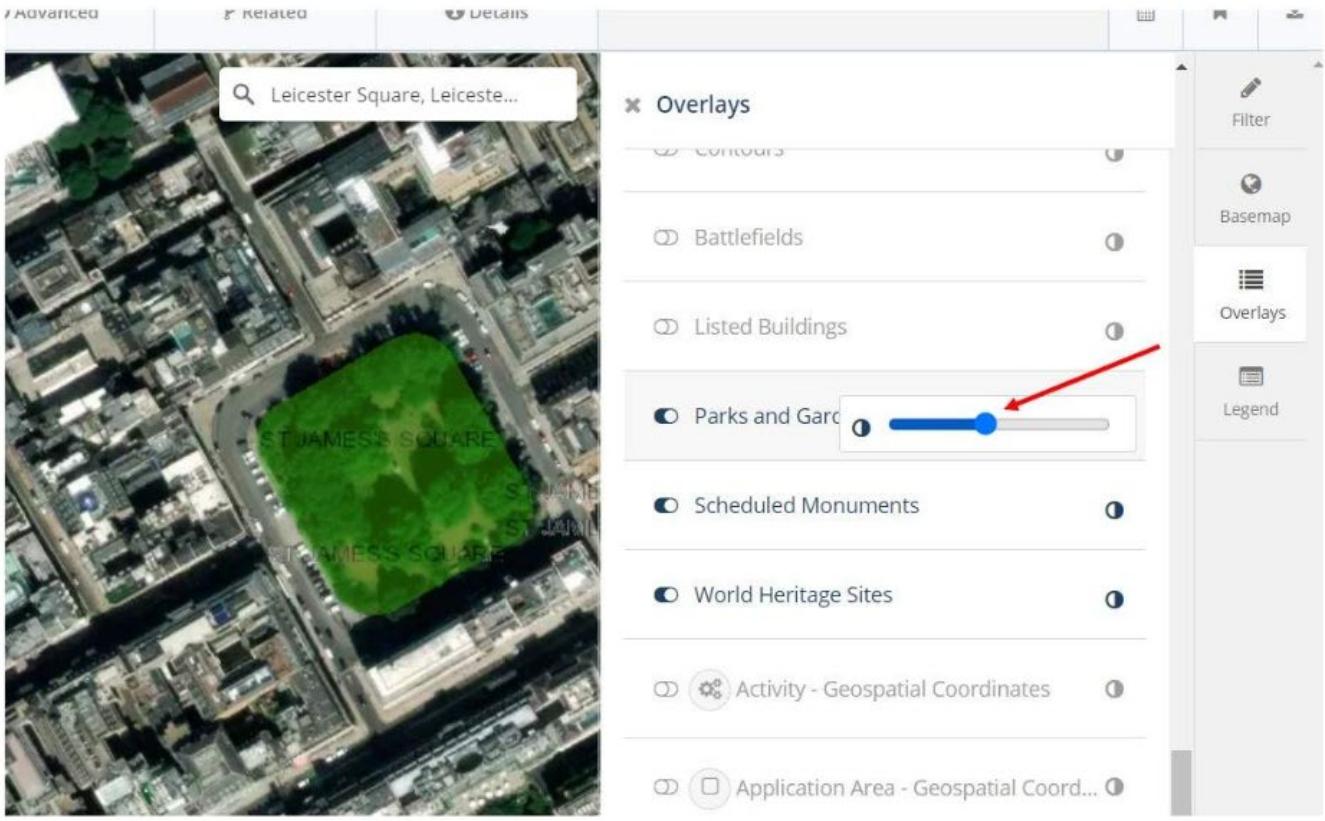
Selecting **Basemaps** allows you to choose from a number of mapping options, including streets, OS Mapping and Aerial Imagery.



Selecting **Overlays** will display a menu of the layers currently available and, if highlighted, visible. These layers can be switched on and off by selecting or de-selecting.

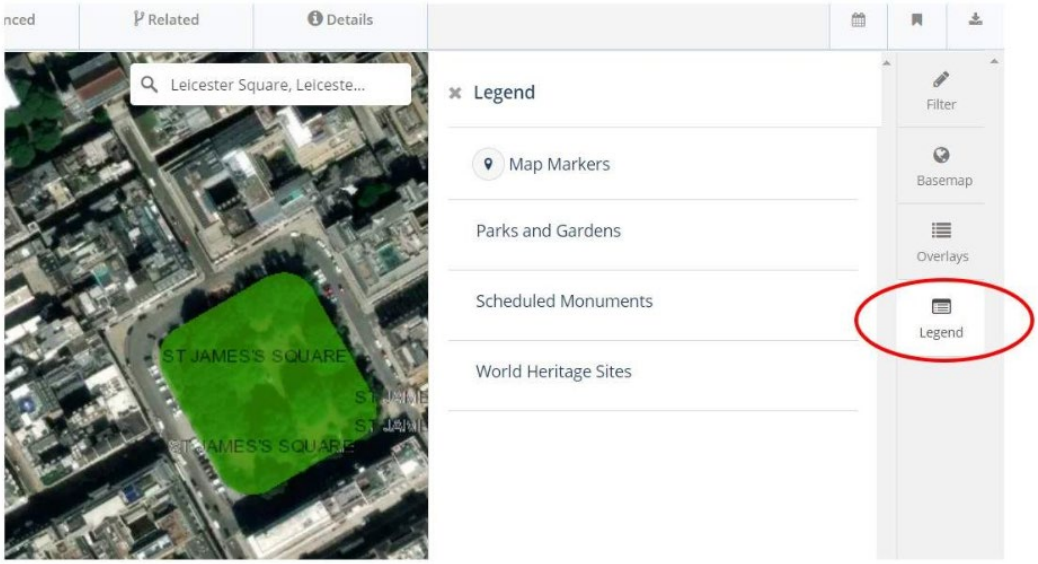


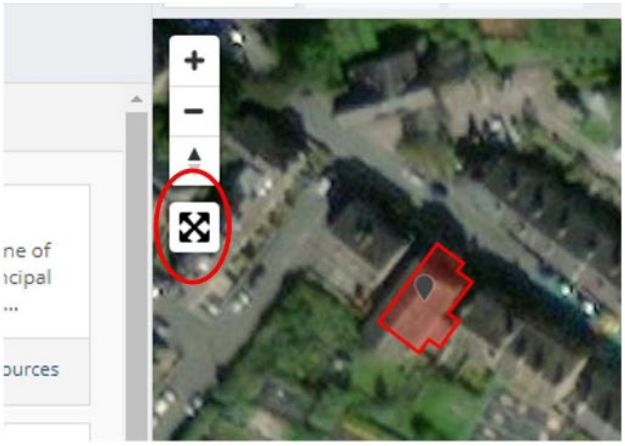
The transparency of features in a layer can be adjusted using the control in the **Overlays** tab.



Additional Basemaps and Overlays can be added to the application. Please contact your System Administrator for more information.

The **Legend** tab provides a summary of the layers currently activated.





The **Toggle to Full Screen** icon allows you to hide the Search Results panel on the left of the screen, increasing the visible map area.

Re-select the icon (now inverted) to restore the initial view (or use the *Esc* key on your keyboard).

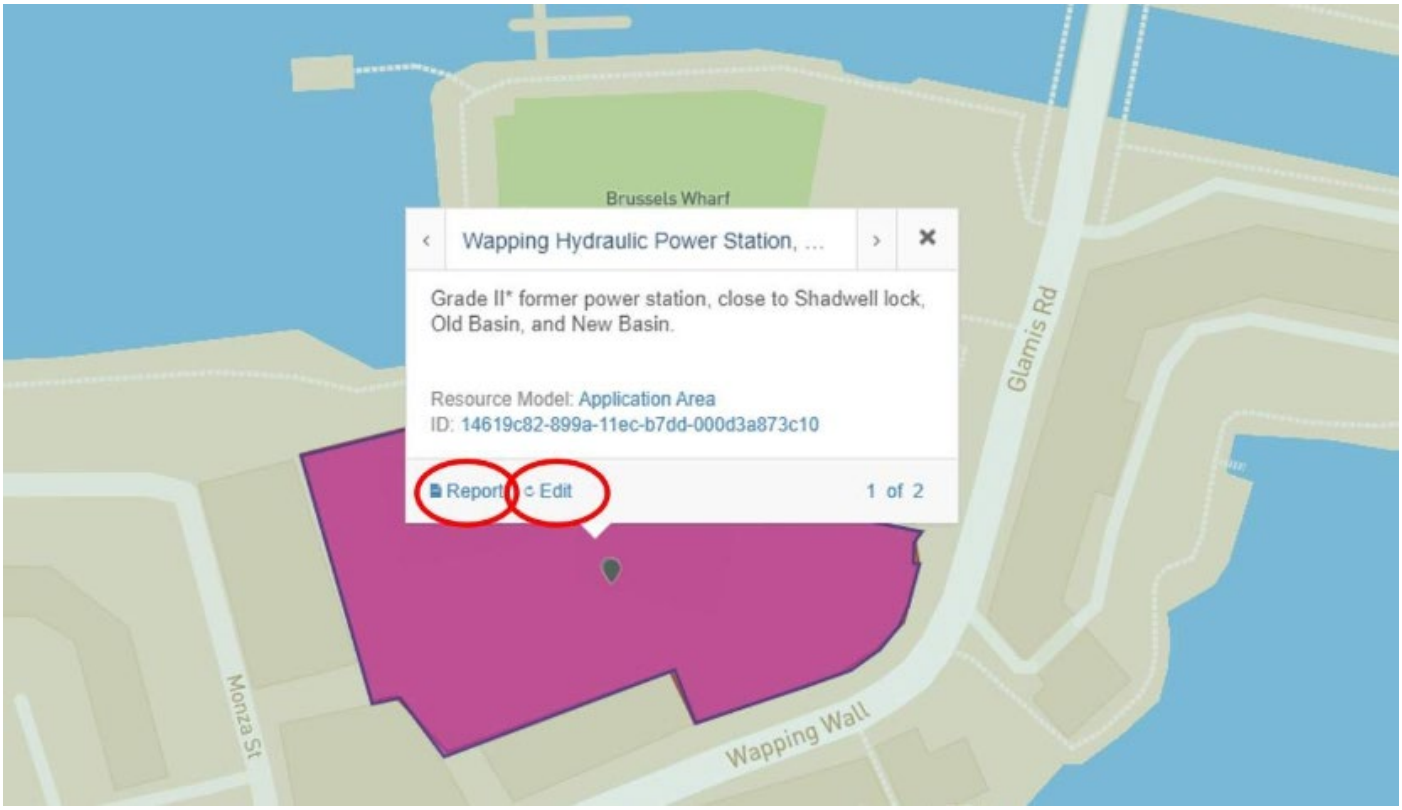
Tilt and Rotate: By holding down your right mouse button and drawing your cursor backward and forwards you can tilt the basemap and features. By drawing the cursor left and right, you can rotate the basemap and features.

Tilt ...

Rotate ...

Selecting the *Reset Bearing to North* icon will return the basemap and features to their original orientation.

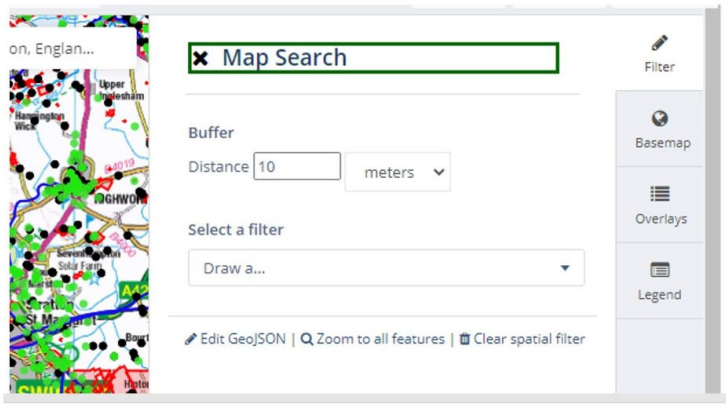
Selecting a feature from the map using your cursor will open a pop-up box displaying attributes for that specific feature to aid identification and allow the selection of options such as Edit (for Resource Managers) and Report.



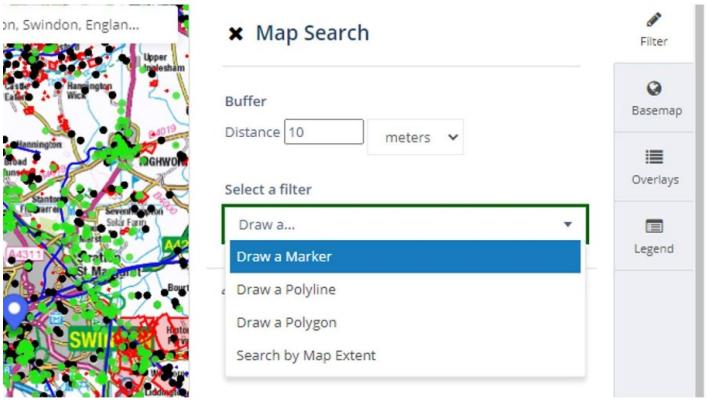
Selecting the **Report** option opens a Resource report containing the resource's textual record in a new tab.

Map Search Tools

In the vertical menu on the right side of the map display area is an option called Filter that contains a number of tools for defining a search area, with or without a measured buffer. Select the icon to open the tool options, and again to close.

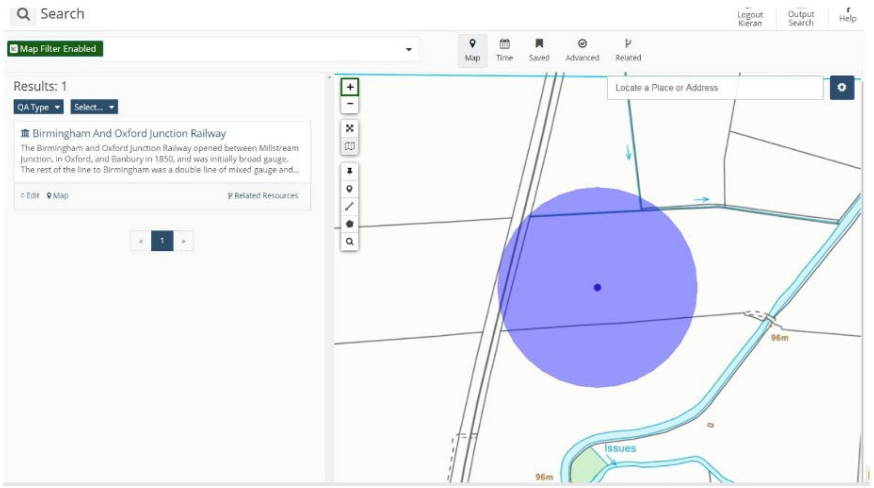


If you wish to add a buffer, in metres or feet, to your drawing, edit the Distance (or delete the default value if you don't require a buffer) and select the appropriate measurement unit from the drop-down.



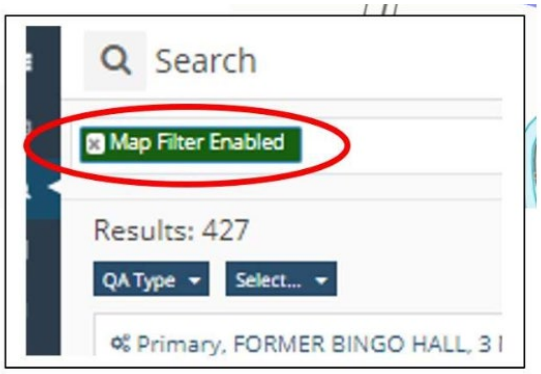
Draw a Marker

A Marker is a point on the map selected manually. Having defined an appropriate buffer, place your cursor on the desired location. A single mouse-click will render the search area and filter the database.

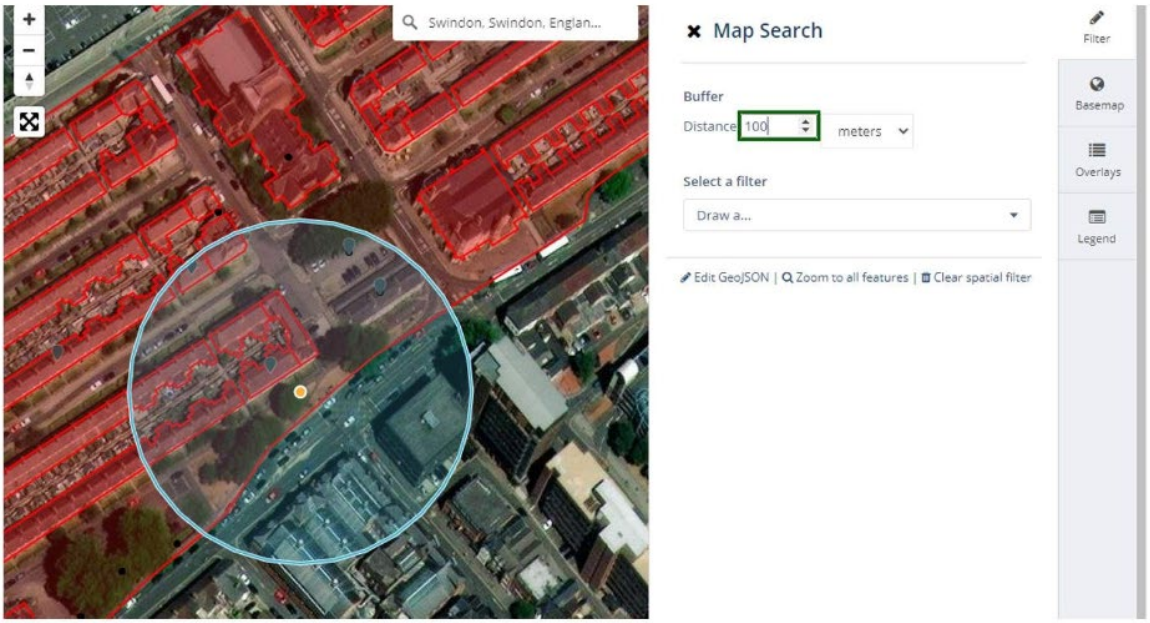


The map will immediately zoom to the specified search area and the Results panel will display those records retrieved.

To begin a new search, remove the *Map Filter Enabled* label from the field at the top of the Results panel.



Once the drawing has been rendered, you can change the buffer value if you wish. The drawing will automatically update to incorporate the new buffer value. This also applies when defining a search area using polylines and polygons.



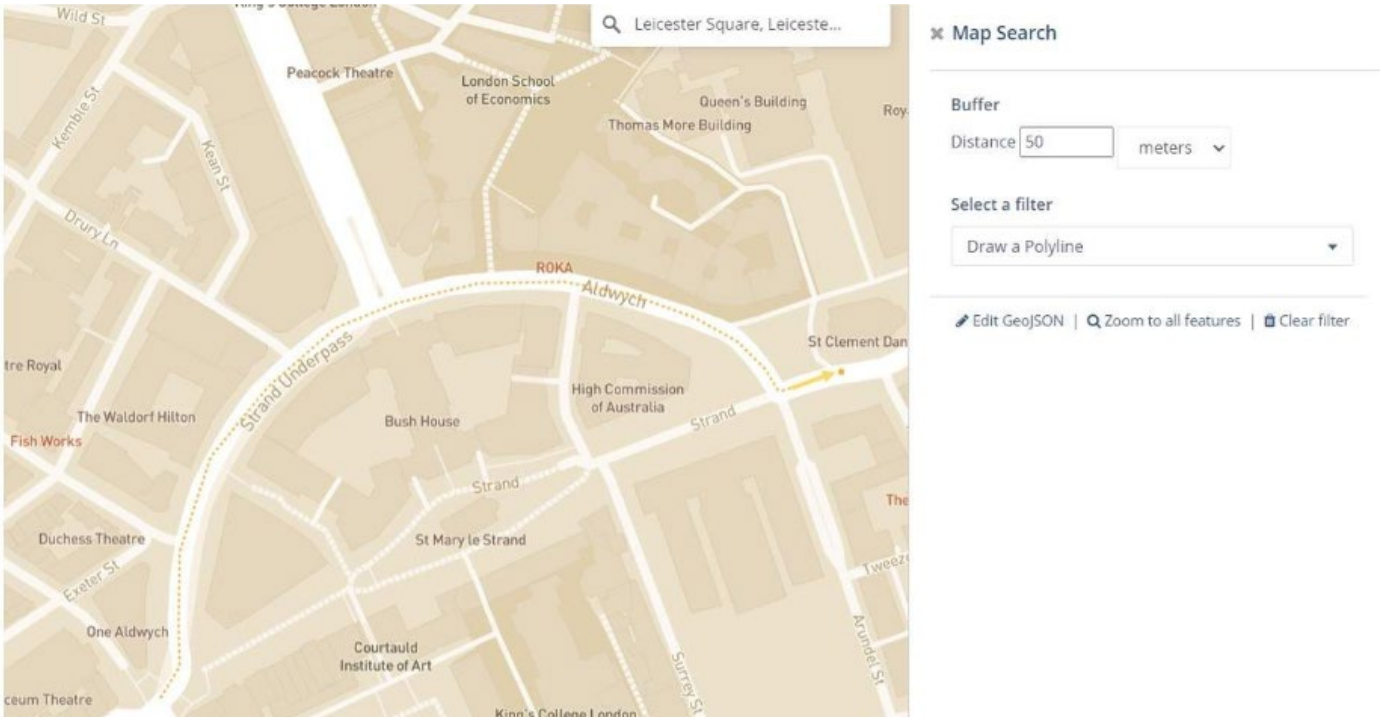
If you wish to place your marker at a specific coordinate-defined location, it is possible to manually edit the GeoJSON code describing an existing marker. First place a new marker on the map using the drawing tool .

Select the **Edit GeoJSON** option from the Edit tab. This will open a panel displaying the GeoJSON code string for the new marker.

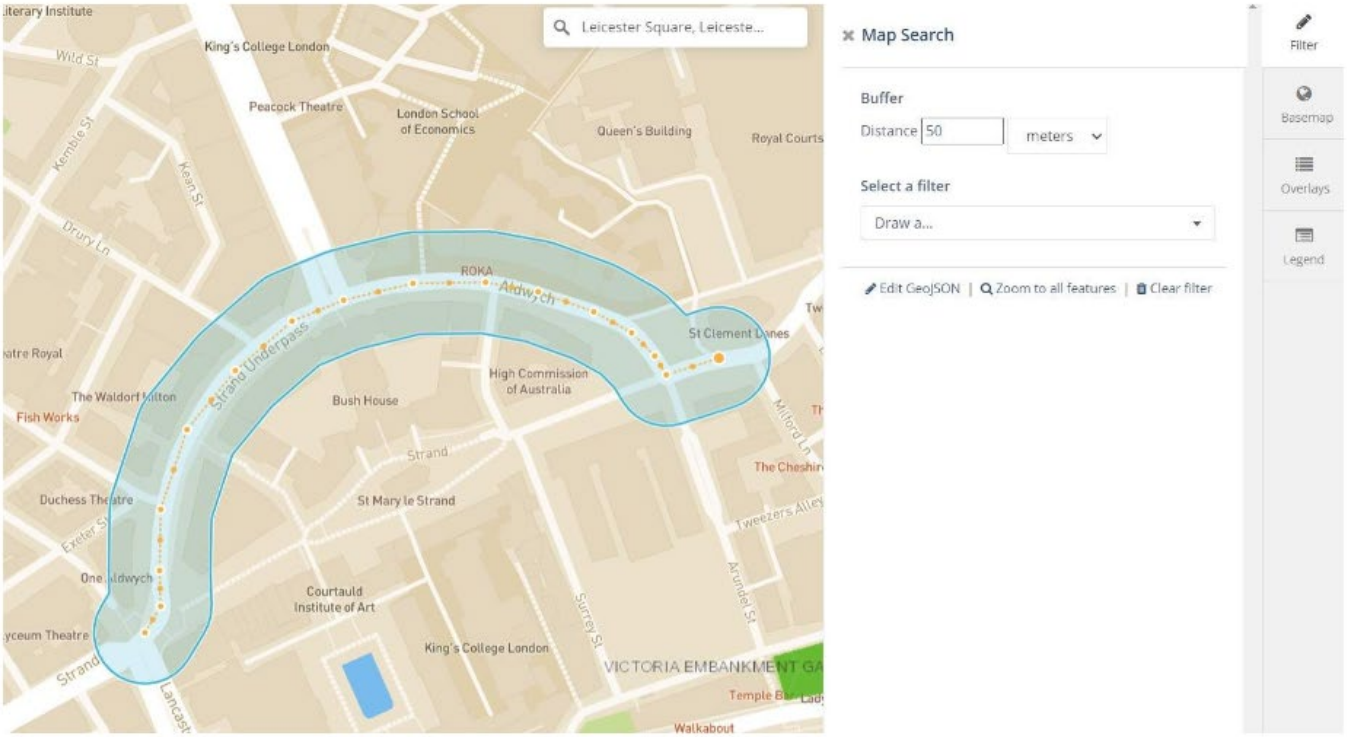
In the code string, replace the existing Decimal Degree values to place the marker at your new location. Select **Update Features**. The marker will be moved to the new coordinates.

Draw a Polyline

Beginning with a mouse-click, use the cursor to draw your line, committing each node, or vertex, with a mouse-click and finishing your drawing with a double-click. When the drawing is complete, the search area will be rendered, including any buffer value added, and the Results panel populated.

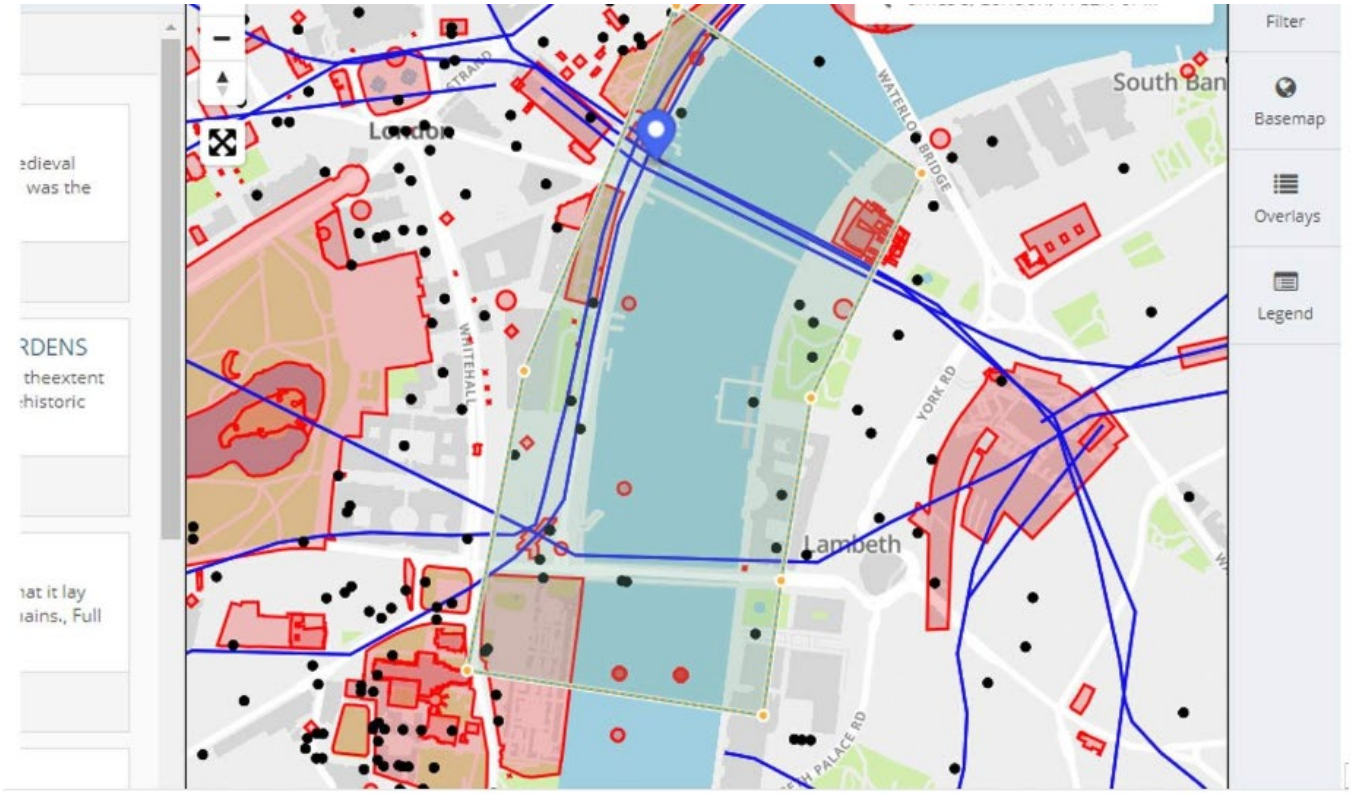


Your polyline, with any associated buffer, will define your search area. The Buffer value can be edited to enable modification of the search area.



Draw a Polygon

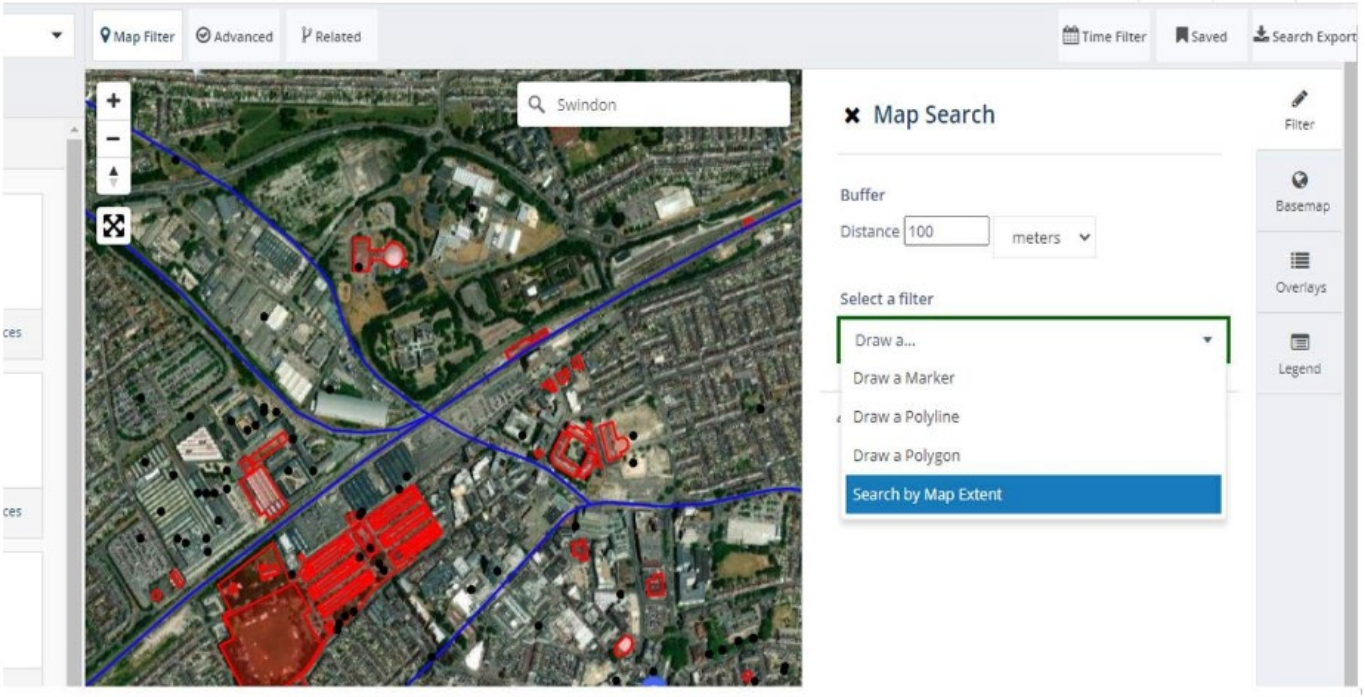
Use your cursor to define your search area, committing each vertex, or node, with a single mouse-click and finishing your sketch with a double mouse-click. When the drawing is complete, the search area will be rendered, including any buffer value added, and the Results panel populated.



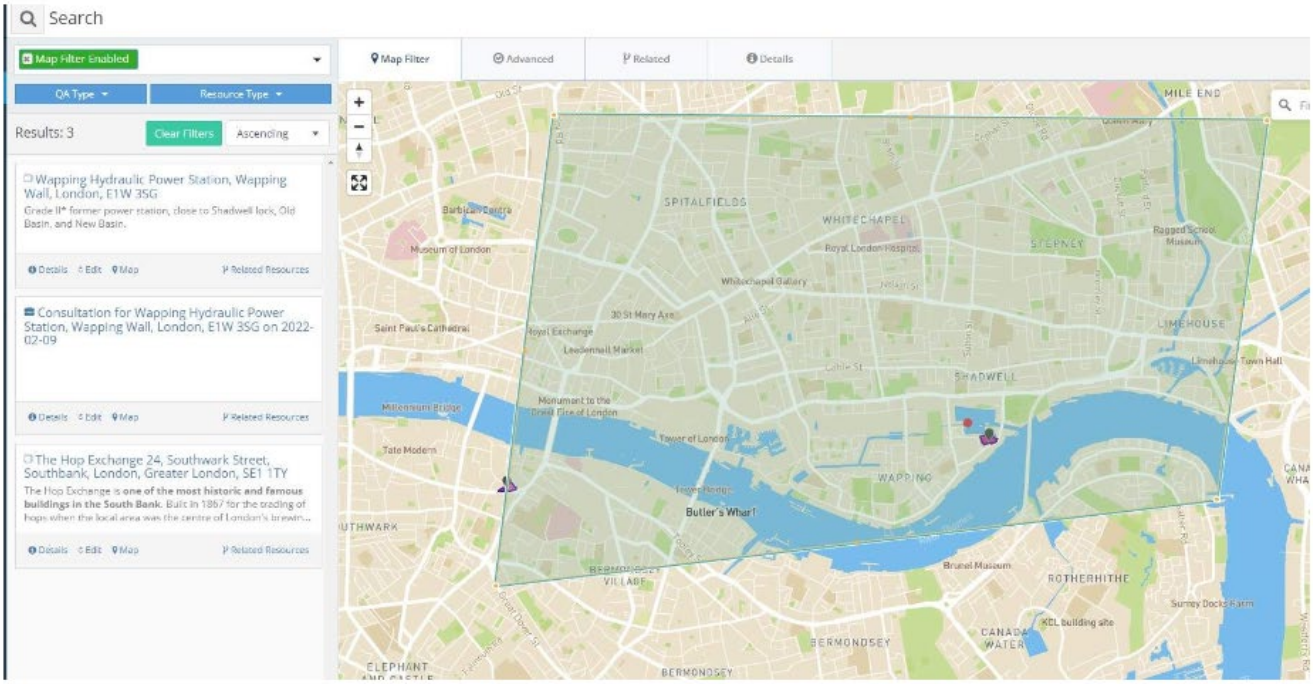
Your polygon, with any associated buffer, will define your search area. The Buffer value can be edited to enable modification of the search area.

Search by Map Extent

Selecting the Search by Map Extent option will retrieve all the records visible in the current map extent.

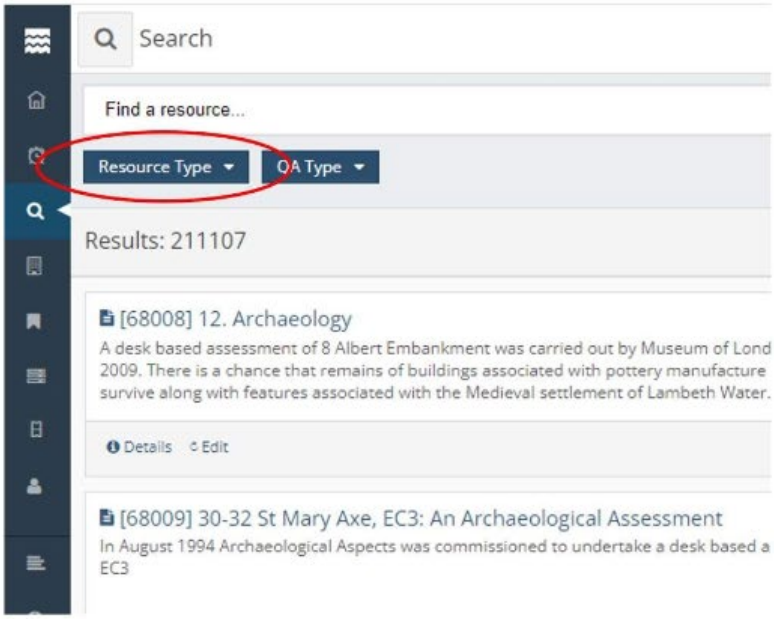


Once the Map Filter is enabled, the Results panel on the left of the screen will filter to display only those Resources selected via the map interface.



Quick Search

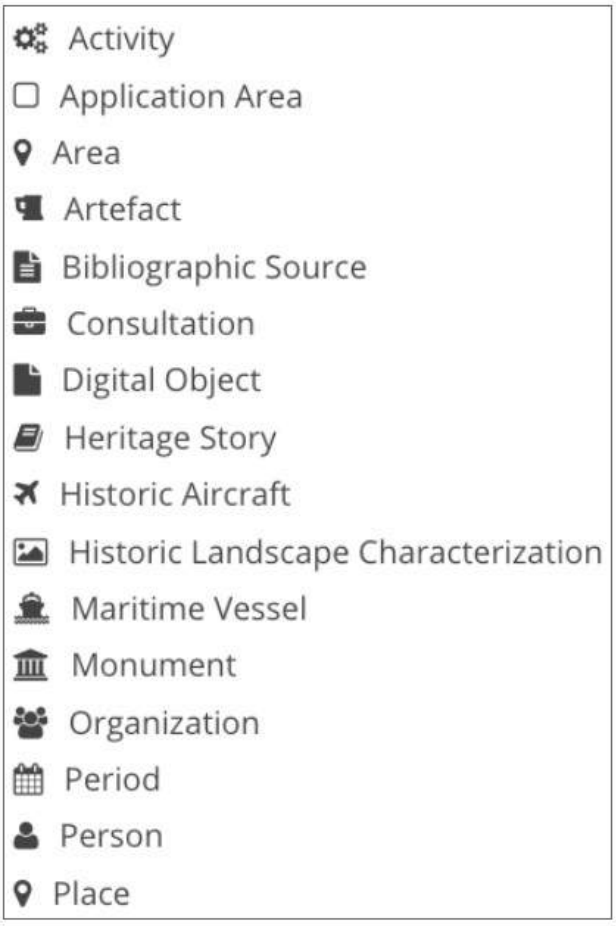
Within the Search interface on the left-hand side of the screen is a list of records. This represents an unfiltered list of all available Arches for HERs resources. The list will diminish each time a search filter is applied. There are several methods by which we can apply simple search criteria to filter this list of resources.



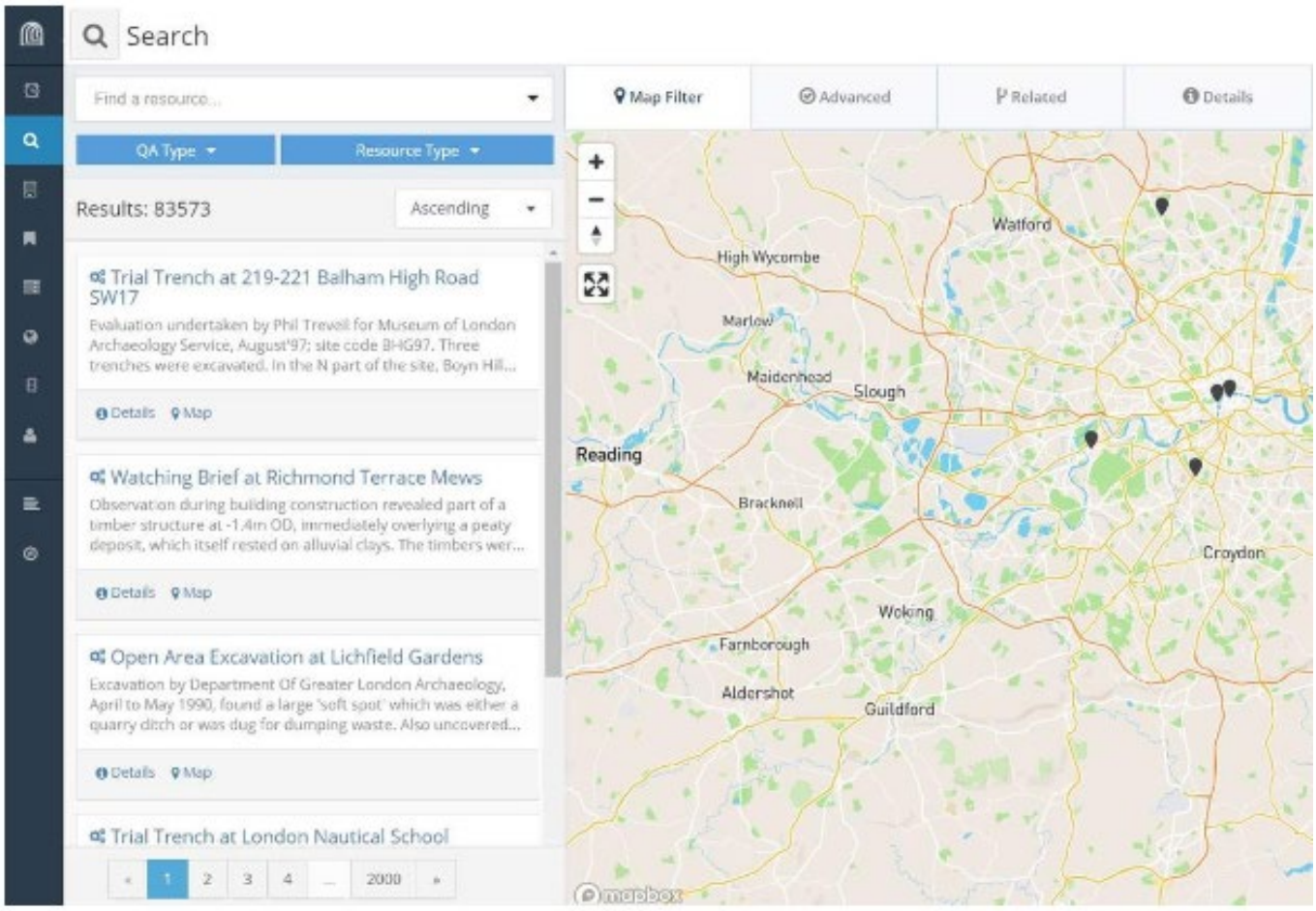
One of the most basic filters you can apply is to select a specific Resource Type.

By accessing the drop-down list of Resources you can choose to view only specific types of records - for example, Monuments. Selecting this will immediately filter the main list of Resources so that only Monuments are visible.

In the Results list, each resource displayed contains an icon denoting its particular Resource Type.

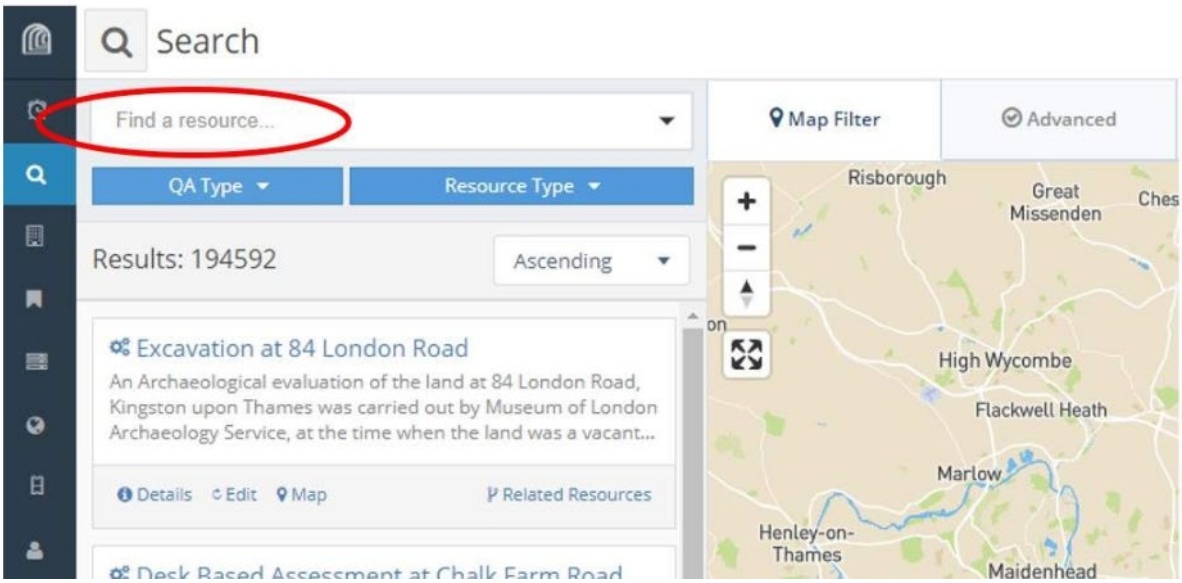


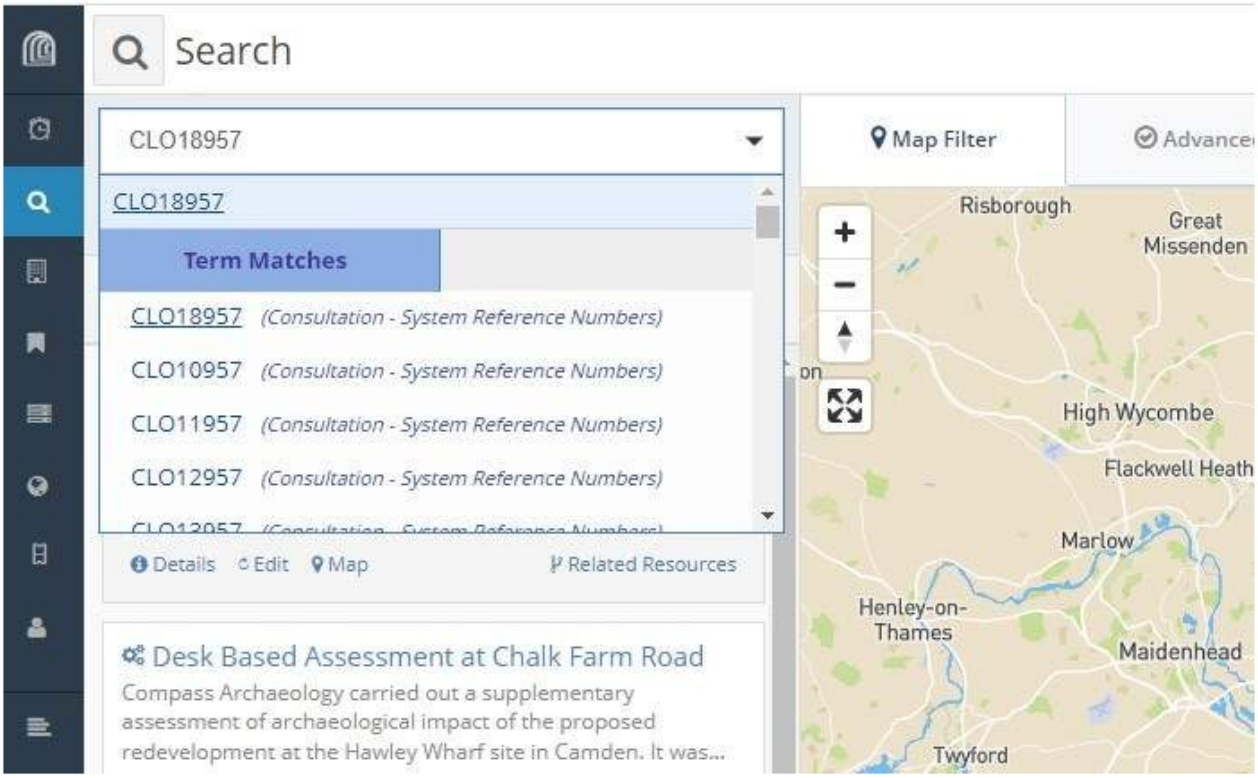
Above the list of resources is the *Find a resource …* text box. This will automatically filter the dataset as you insert a value, such as an identifier, a name, location or monument type, searching all fields for matching content.



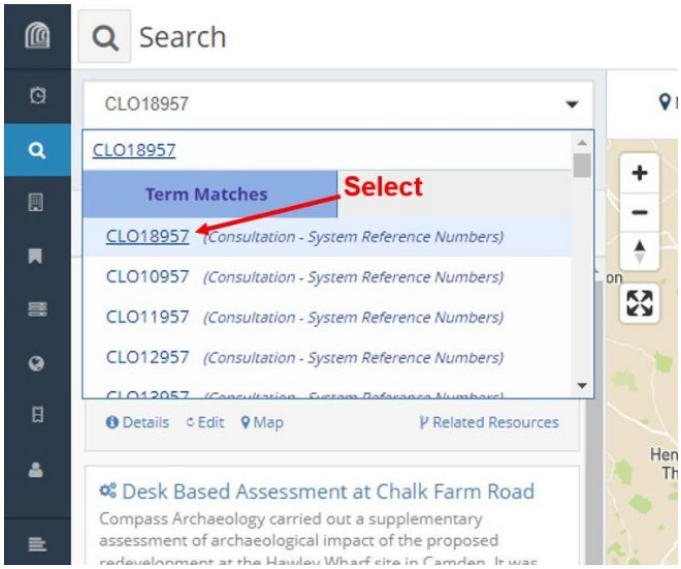
Retrieving a record using an ID

If you wish to retrieve a specific record to view and/or edit and have a value for an identifier, such as a ResourceID, a Legacy ID or even an ID with which it is cross-referenced, you can enter the value in the *Find a resource...* box above the results pane.

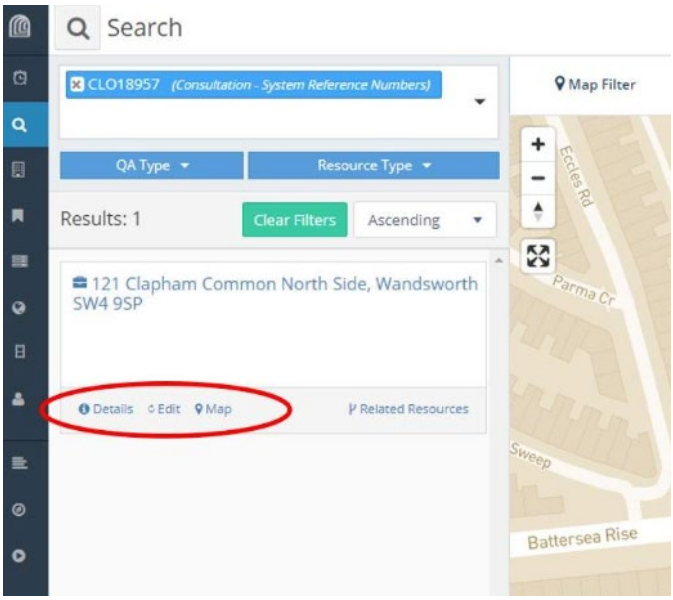




The Elastic search mechanism will search the entire database for matching values, also returning close matches and similar values. A drop-down list will appear displaying these matching values with their context displayed in brackets. In this example, which is a Consultation Legacy ID, there is an exact match occurring as a *Consultation - System Reference Number*. Below this are listed similar values (in this case, similar numbers).

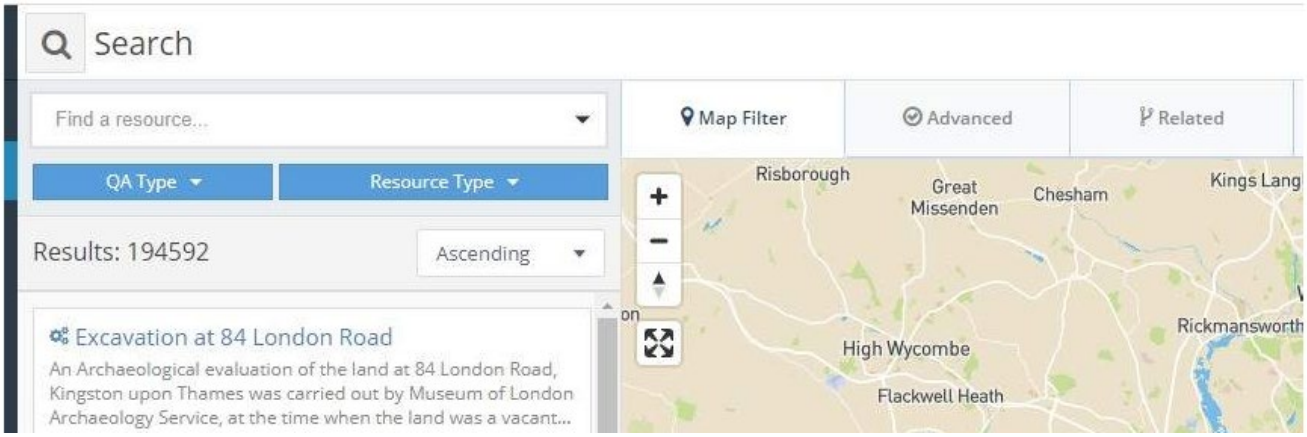


Select the matching value. Note: should you select the option displayed directly above the *Term Matches* heading all records containing an exact match, but in any context, will be returned.

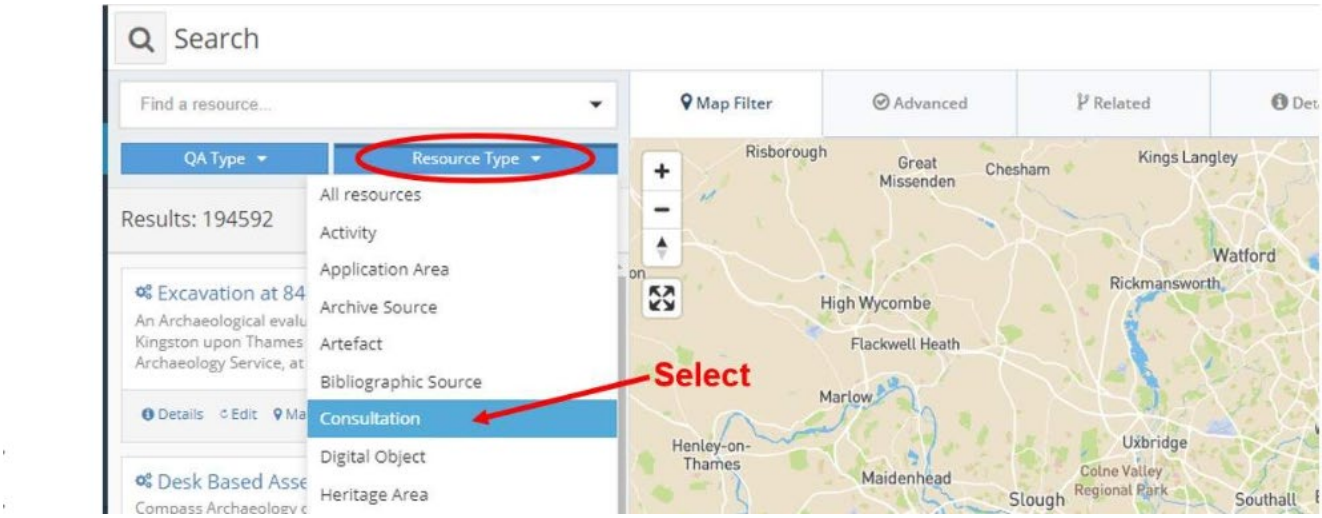


Once the required value is selected, the Results list will filter to display only records containing that value - in this example, a single record. At this point you can choose to see a brief summary of the record by selecting the **Details** link; or you can open the record to edit its contents using the **Edit** link; or you can zoom the map display to the record's location using the **Map** link.

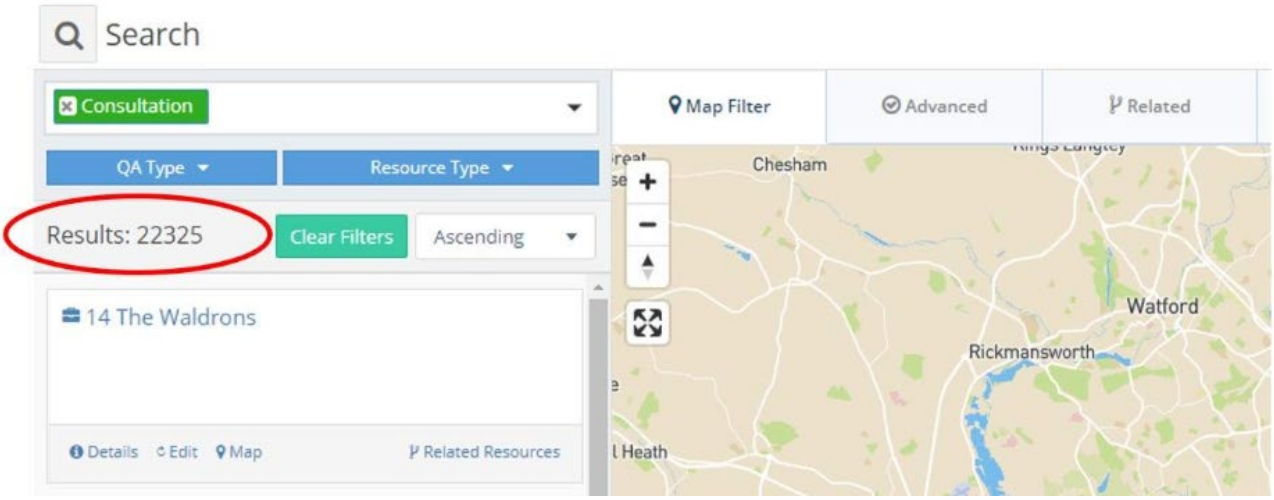
Thematic searches



Quick thematic searches can be executed using the *Find a resource* text box. Before entering a value...

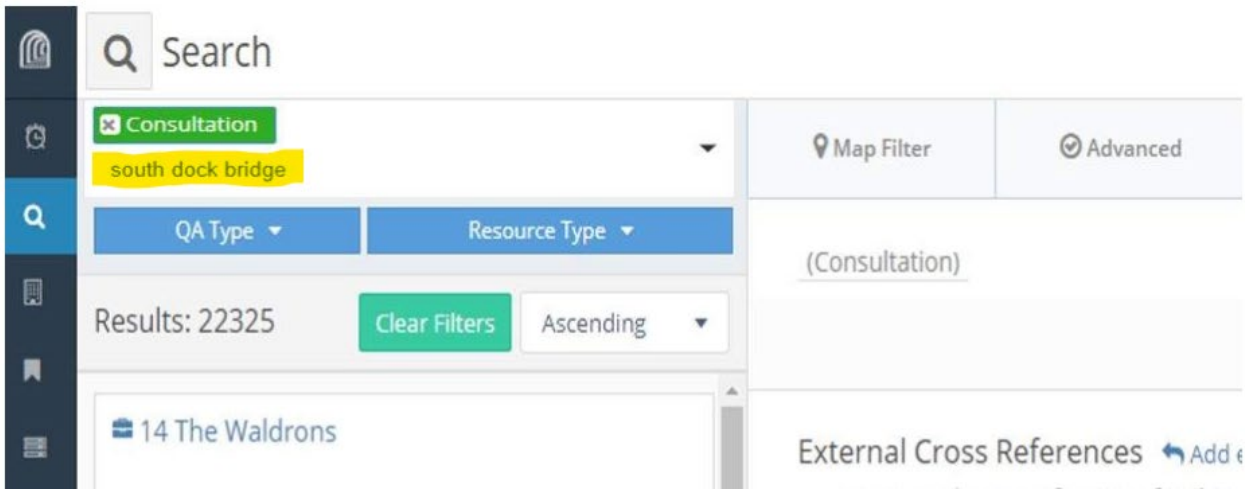


Select a specific Resource Type to narrow your search.

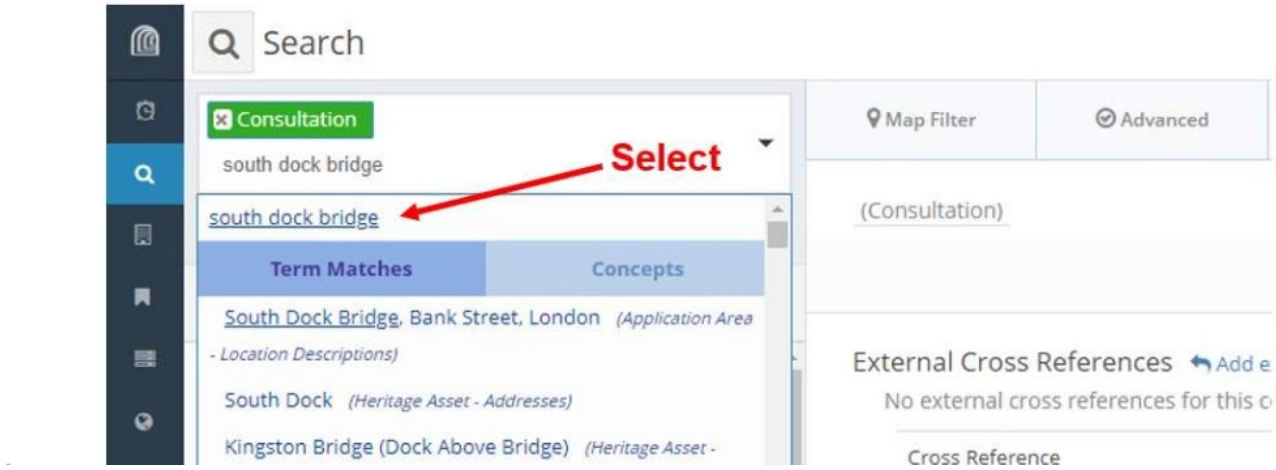


The Resource Type will appear in the Search text box to show this has been applied as a filter. The map display will zoom to the full extent of the Resource Type selected and you will see the individual records listed in the Results panel.

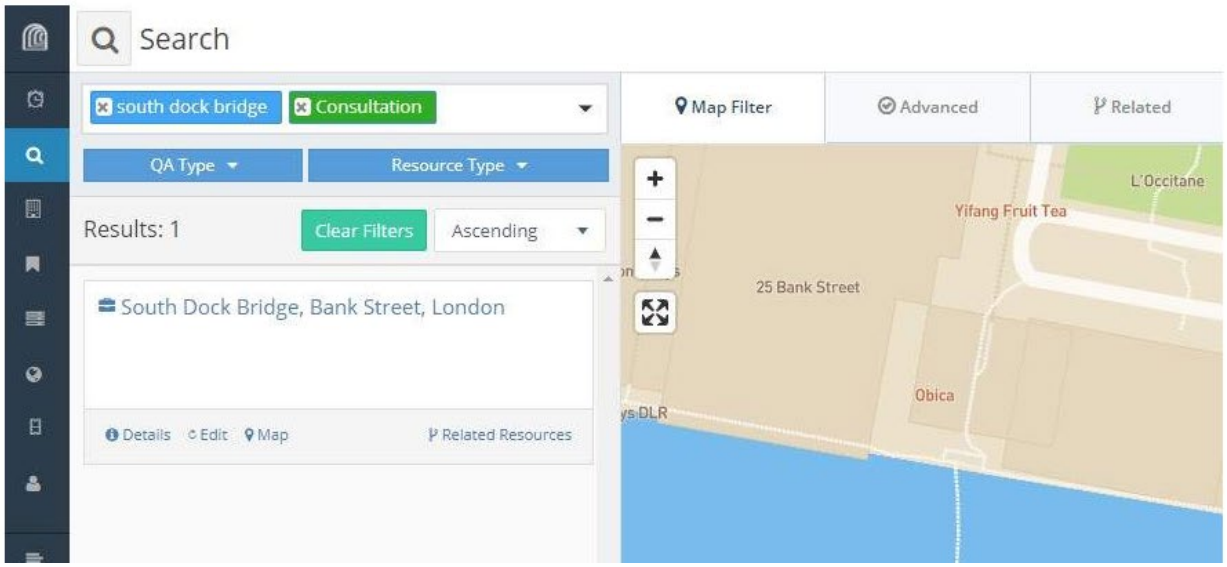
To add a further search filter, such as a location or a part of an address, insert a further value in the *Find a resource...* box.



Add a value to the *Find a resource...* box.



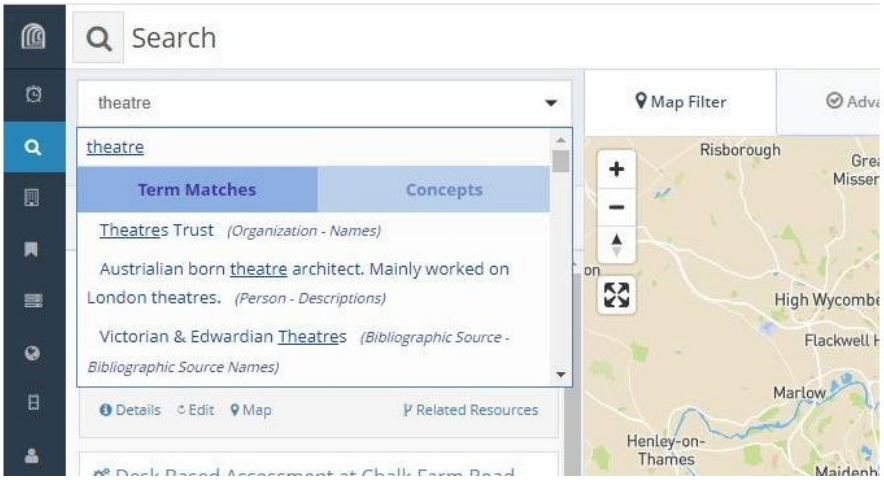
A filtered list of matching and close-matching terms will appear in a drop-down panel under a heading of Term Matches. Each instance is accompanied by the context in which they can be retrieved (across various Resource Types). To retrieve all contexts where an exact match occurs, select the very top instance above the *Term Matches* heading.



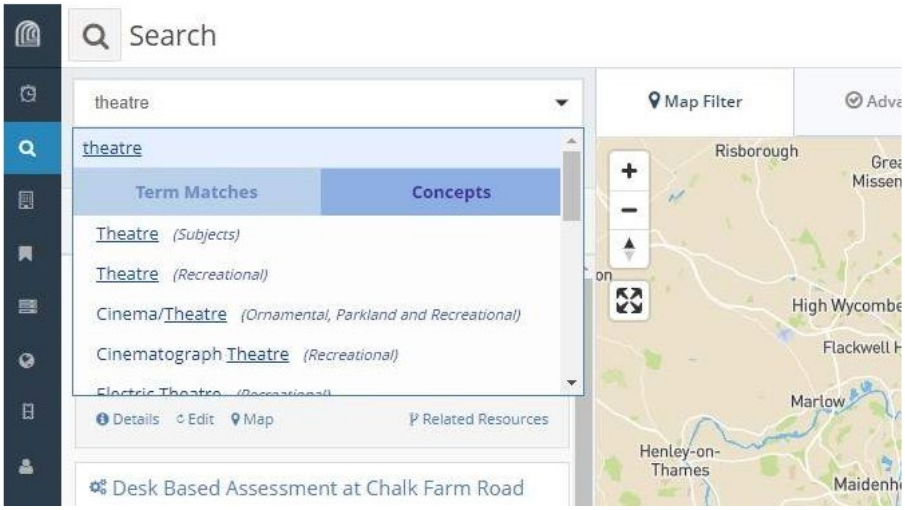
The Results panel will filter to display only those records (in this example, Consultations) that contain an exact match to the value entered.

Concepts

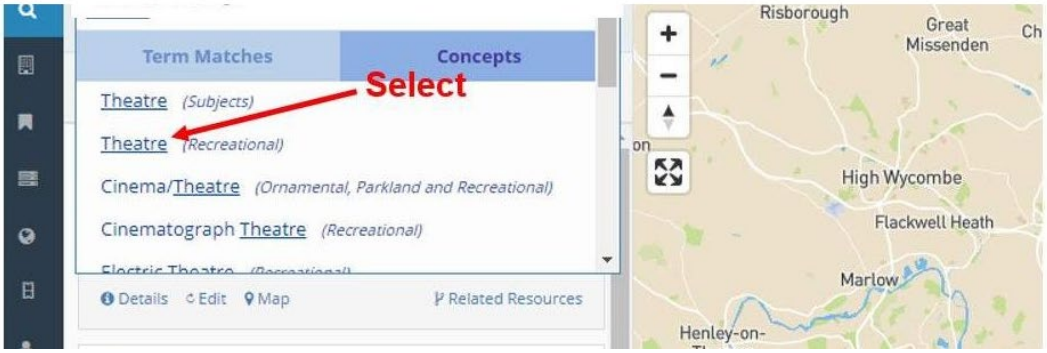
When you search on a value that happens to occur within a thesaurus, authority list or other item of reference data within the application, the drop-down list of matching values will include an additional tab entitled *Concepts*. Selecting the *Concepts* heading will display instances of the term, and similar terms, that appear in any thesauri, authority lists or other reference data within the application, allowing the user to perform thematic searches.



Term Matches displays values, and similar values, occurring within all contexts within records.

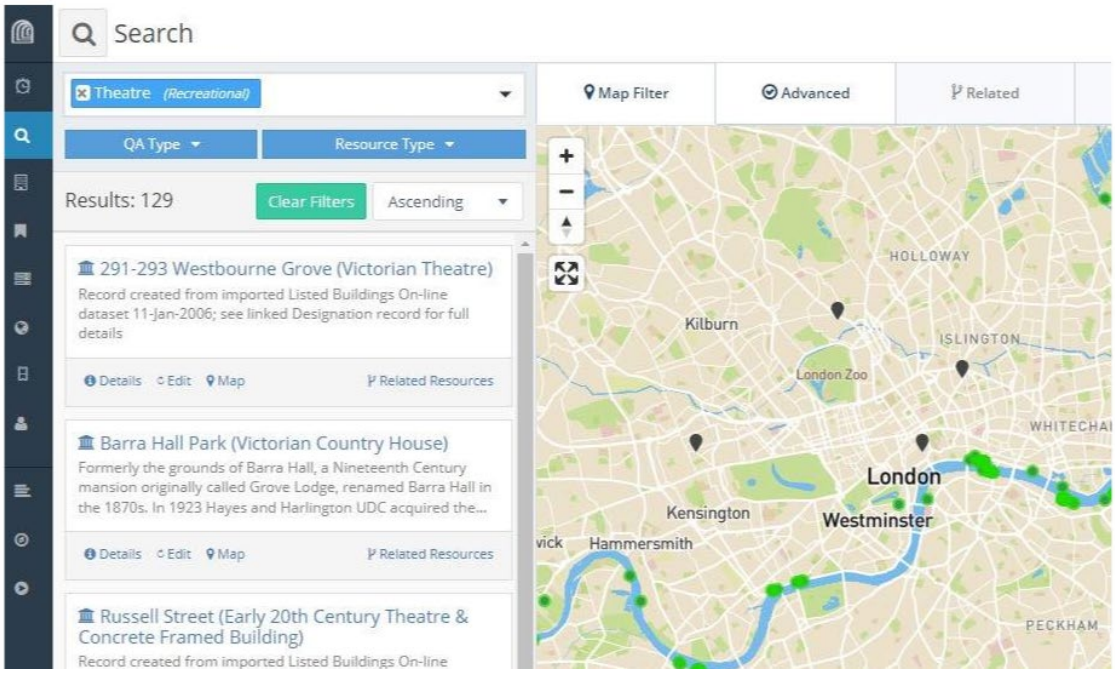


Concepts displays instances of the term, and similar terms, within the application's reference data - in this example the *Subjects* list and the *Thesaurus of Monument Types.*



Select the most appropriate instance from the list.

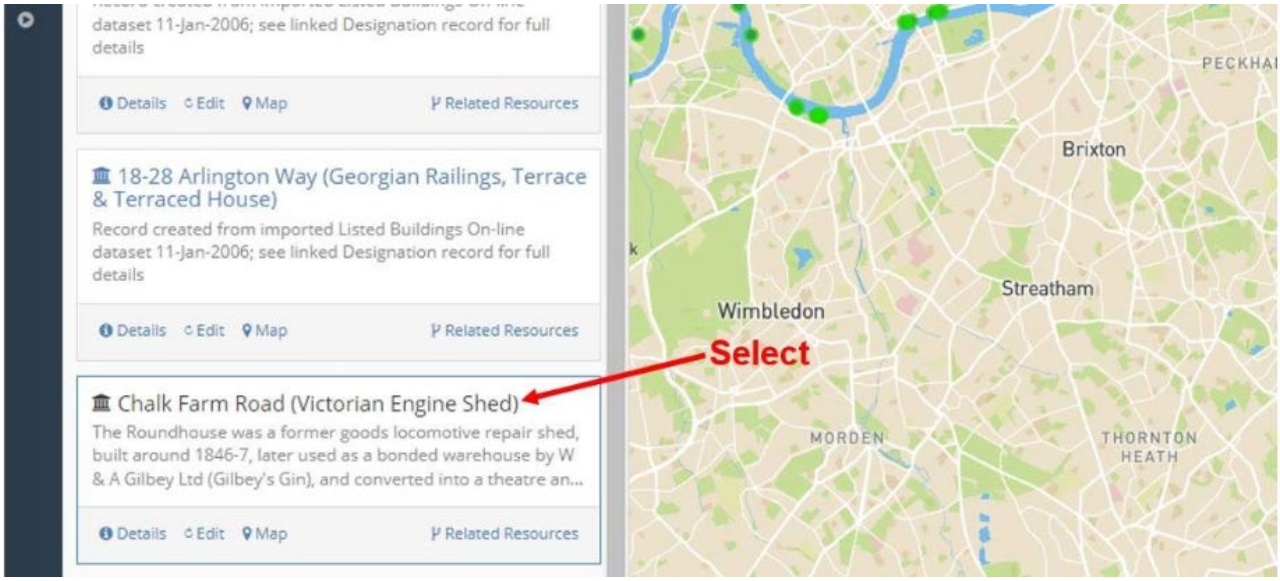
The Results panel will immediately refresh and display only those records satisfying your search criteria. These criteria are represented as filters in the text box above the Results panel. Each record is represented by a marker on the display.



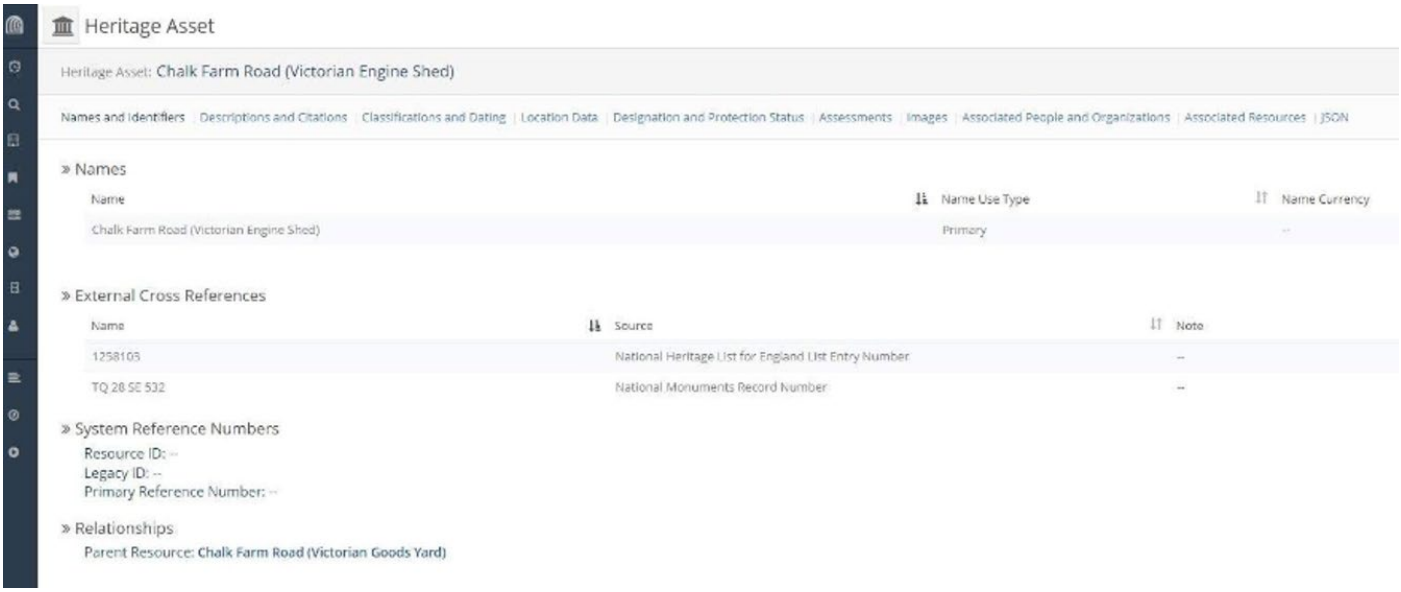
To remove a search filter displayed in the search text box, select the X at the beginning of the filter's name.

Selecting the resource name of one of the records in the Results list will open the Resource Summary in a new tab (see below). To close the Summary, simply close the new tab.

Note: As Resources open in a new tab when selected, be sure to close such tabs when they are no longer needed to avoid possible confusion when opening further resources.



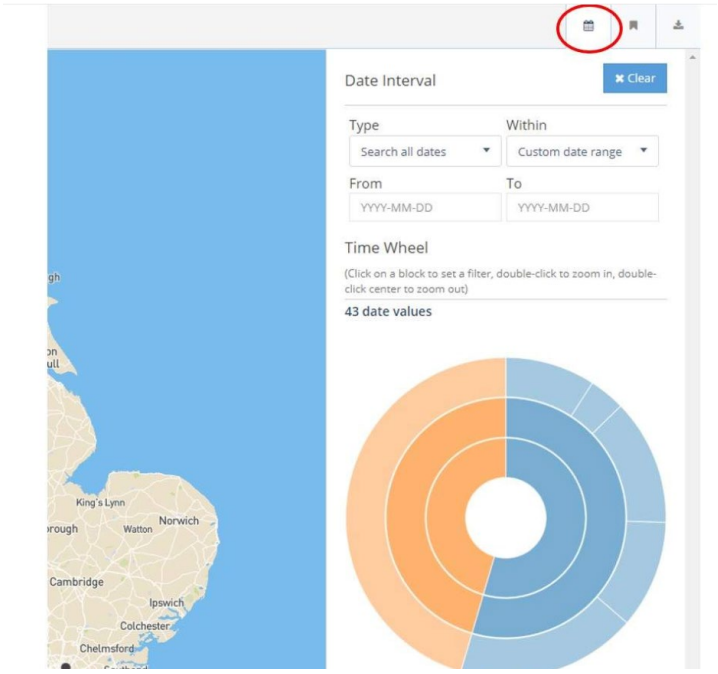
Depending upon user permissions, the entry in the Results pane also features an **Edit** link (to open the source record) and **Map** link (to zoom to the location in the map display).



Date Interval / Time Wheel

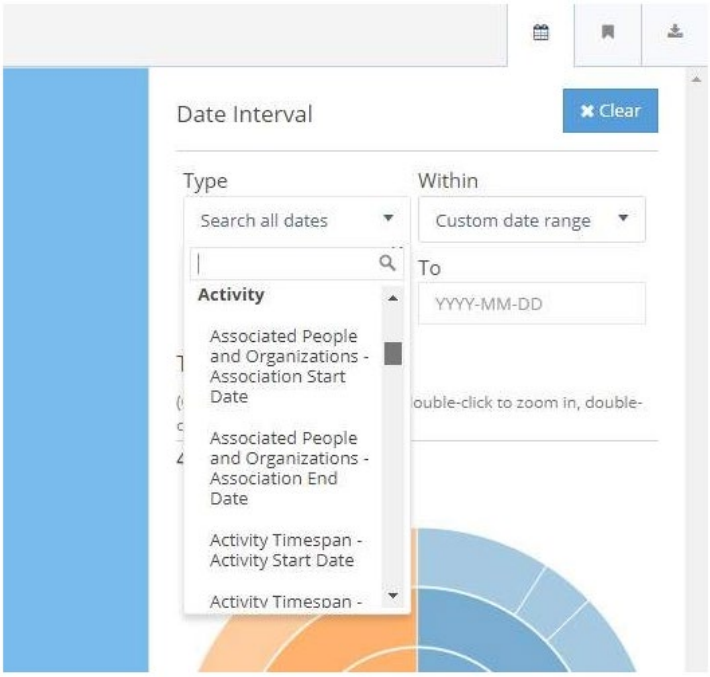
You can apply a temporal criterion to your query by using the *Date Interval* and *Time Wheel* filters.

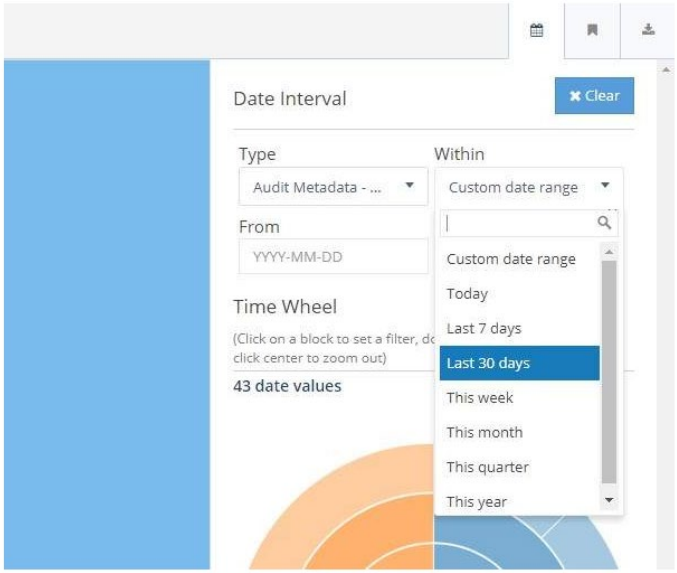
Date Interval gives you the option of creating the filter by hand, selecting a time-related facet for a specific Resource Type and adding either a set time parameter or a custom date range. Or you can use the time wheel.



Select the Date icon on the right of the screen to open the *Date Interval* and *Time Wheel* search panel.

The *Type* node accesses a list of date-related facets for each Resource Type.





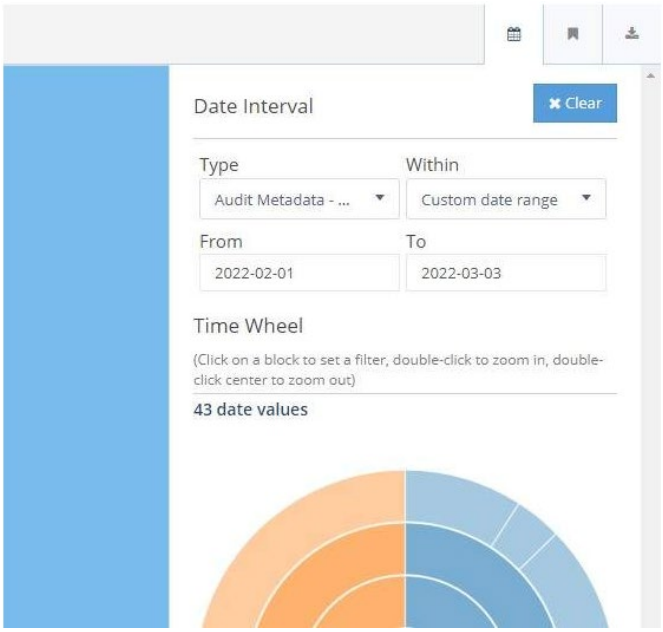
You can either leave the *Within* node with its default value of *Custom date range*, or you can select a value from the drop-down list of pre-set parameters, which are best suited to audit-type queries.

Insert a date range by adding values to the *From* and *To* date nodes.

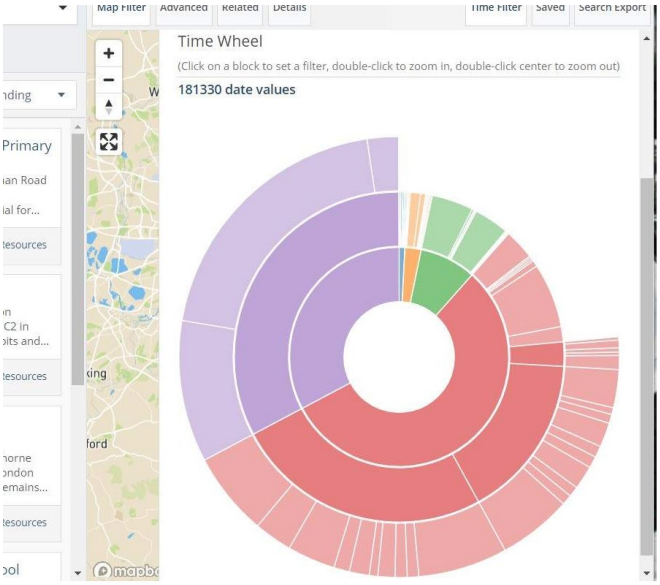
Note:

BC/BCE dates can be represented as minus values. For example, **From** -2500 **to** -1000.

AD/CE values up to 999 should be represented as four digits. For exmaple, **From** 0047 **to** 0998.

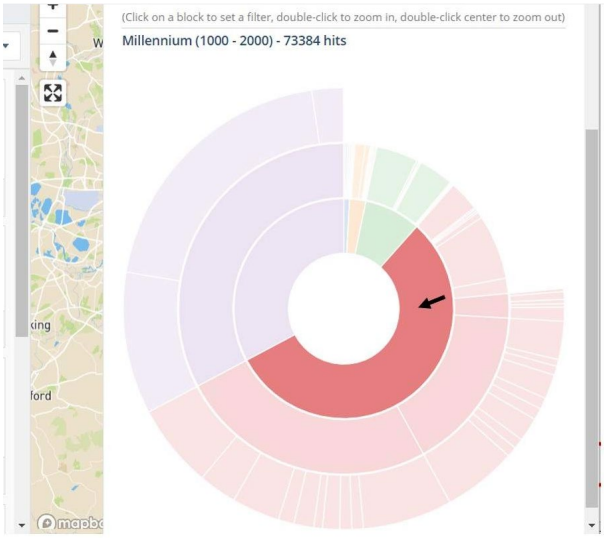


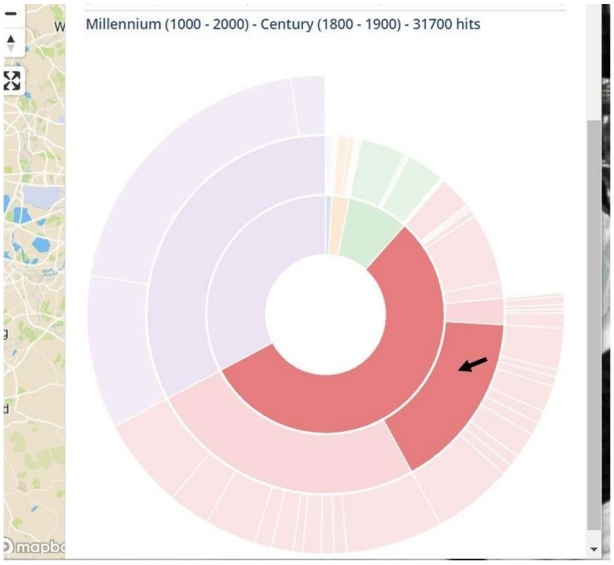
The Time Wheel is a graphic representation of all the resources in the database organized chronologically. Placing your cursor on the wheel in different areas displays a time period (millennium/century/decade) and the number of records falling within it. A mouse-click will retrieve those records.



The wheel represents the entire data set and is divided into three concentric rings divided into segments. The centre ring's segments each represent Millennia relating to a proportion of the data set.

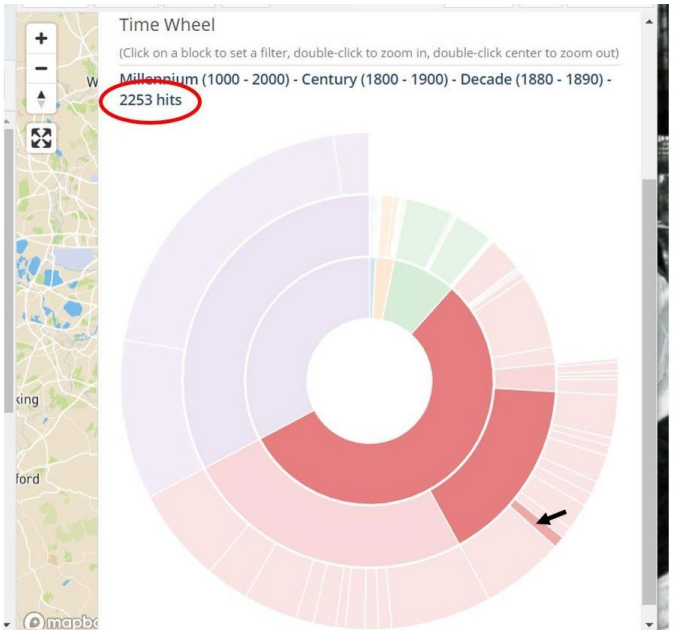
The size of each segment is dictated by the number of records attributed to each millennia. The larger the segment, the greater the number of records that will be returned. Place your cursor on one of the segments and the display will show the millennium you have chosen and how many records (or number of 'hits') within the data set fall within that period. If you wish to retrieve these records, select the millennium with a mouse-click.

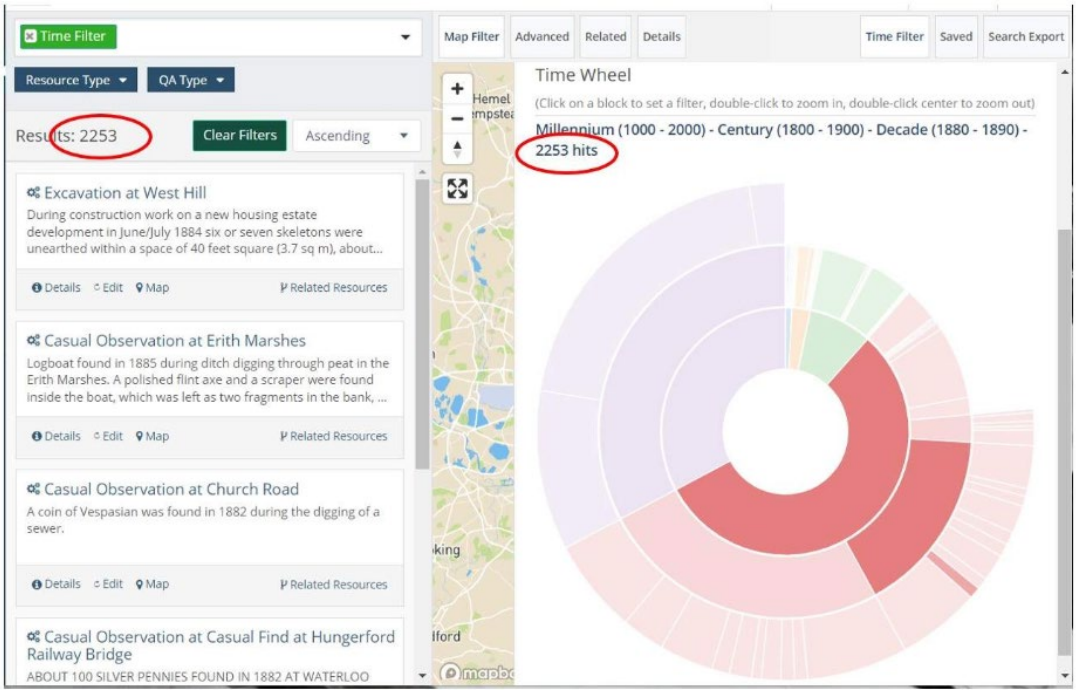




The middle one of the three rings represents centuries, the segments varying in size according to how many records are attributed to each. By placing your cursor on one of the centuries relating to the millennium already highlighted, you can see the number of records, or hits, that will be returned should you select this period. If you wish to retrieve these records, select the century with a mouse-click.

The outer ring represents the decades within each century, the segments varying in size according to how many records are attributed to each. By placing your cursor on one of the decades relating to the century and millennium already highlighted, you can see the number of records, or hits, that will be returned should you select this decade. If you wish to retrieve these records, select the decade with a mouse-click.





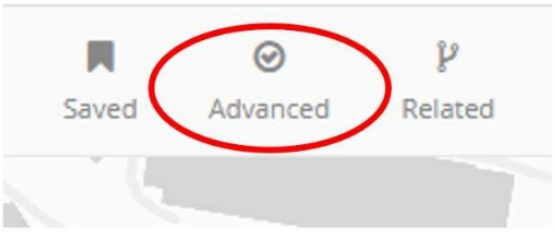
Whilst this method of retrieval can result in very large result sets, these can be refined by adding further filters via the map interface, the Quick or Advanced search facilities.

Remember to remove any unwanted filters from the Search box before you begin a new search.

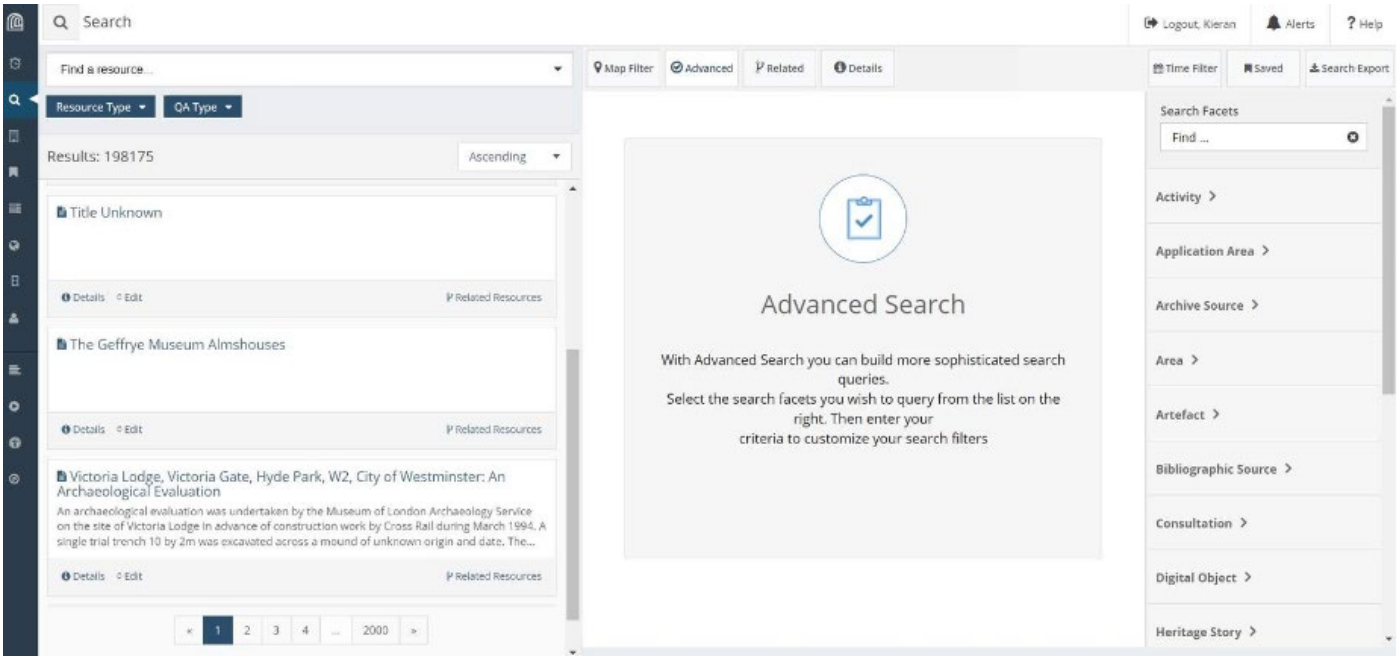
Advanced Search

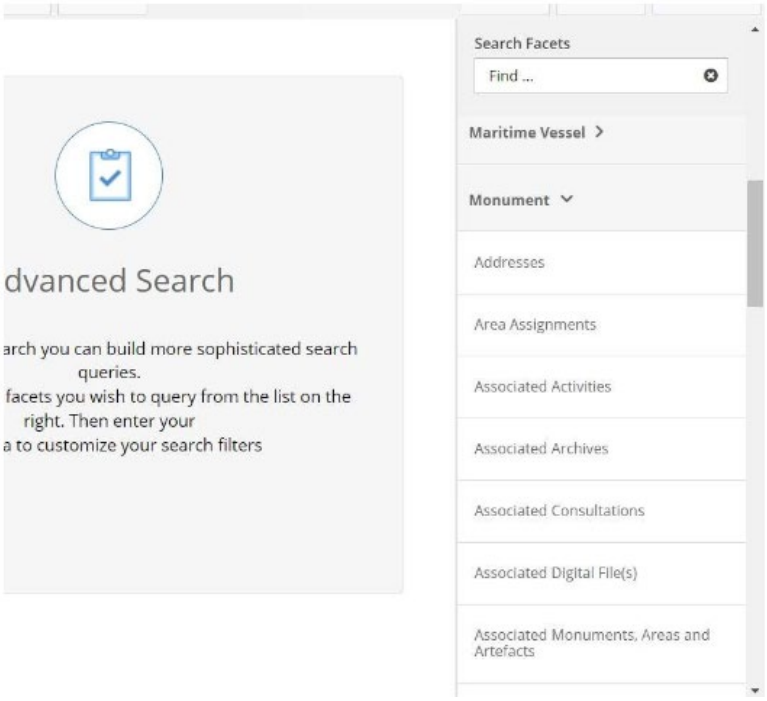
To build a query using one or more textual attributes:

Select the Advanced icon at the top of the screen.



This will open a panel on the right-hand side of the screen that enables the user to select the Resource they wish to search (e.g. Monument).



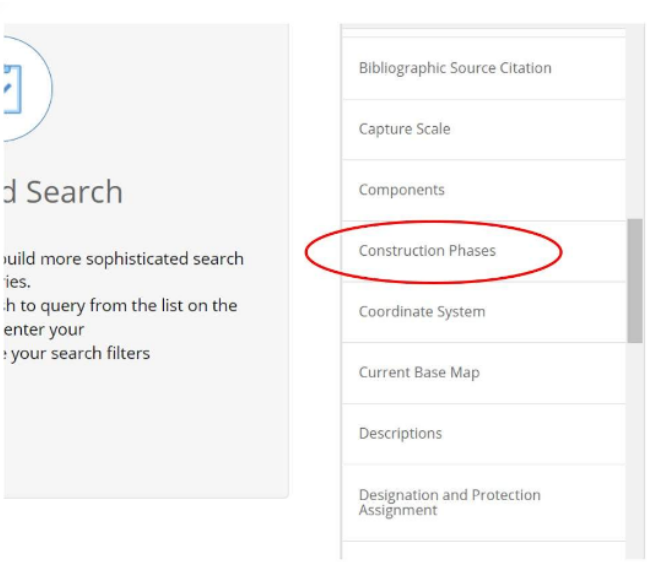


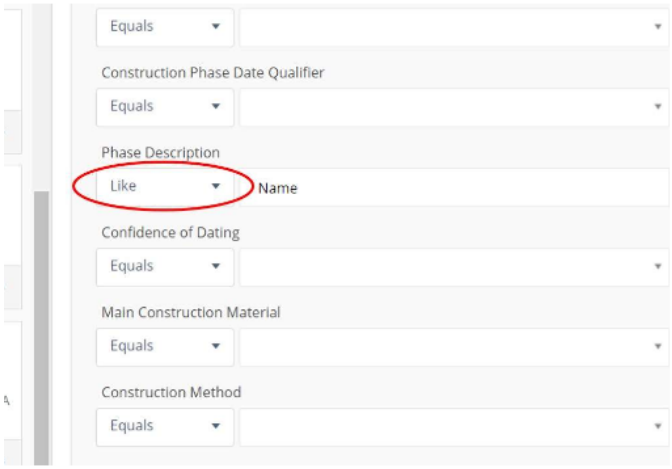
Each Resource title is accompanied by an arrow icon. Selecting this will expand a list of the various facets attributed to the specific Resource Type.

Note: At the top of this panel is a *Search Facets* field that enables you to insert a keyword or Facet name to retrieve a list of matching options across the various Arches for HERs Resources.

Each facet represents a branch or a card within the resource, each of which will contain one or more nodes that can be used as search parameters.

Select a Facet to open the search panel.

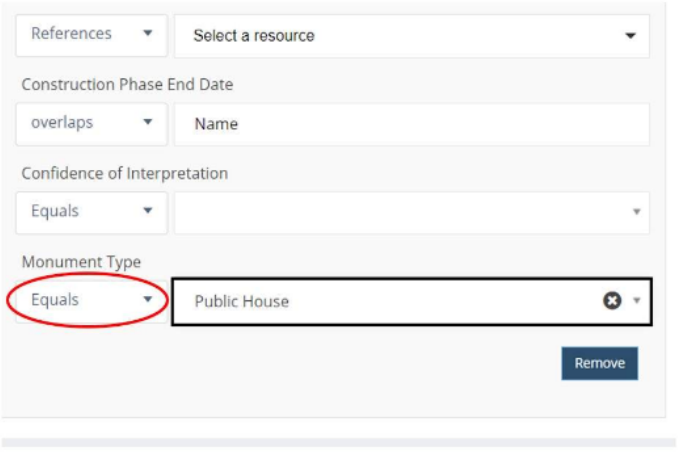




Each information field, or node, requires the selection of a query condition term (Like/Not Like/Equals/Not) to define the parameters of the search. Where an information field contains uncontrolled data (i.e. free text descriptions) the choice of *Like/Not Like* enables the use of key words in the search.

Fields controlled by thesauri and authority lists will only contain the *Equals* and *Not* choice of condition.

Insert node values.



Note: When selecting thesaurus terms the search will retrieve results for that term only and will not search across a hierarchy. Select additional instances of the appropriate card to include additional terms.

NOTE: Arches for HERs uses the Extended Date Time Format (EDTF) – ISO 8601 (extension) – where nodes contain date values: **YYYY-MM-DD**

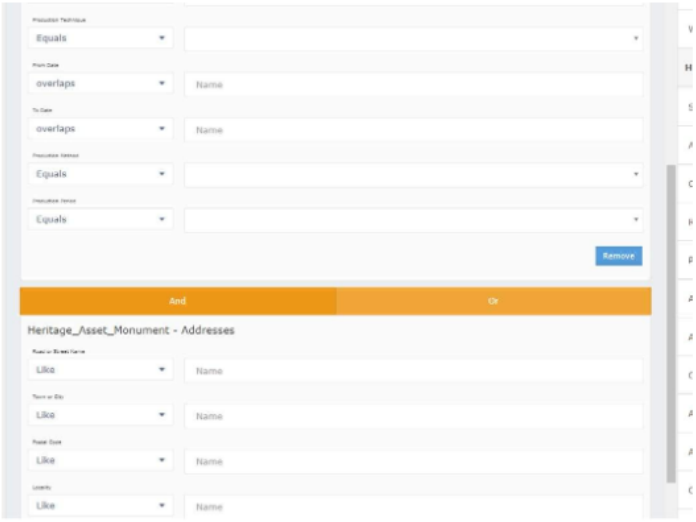
Note:

BC/BCE dates can be represented as minus values. For example, **From** -2500 **to** -1000.

AD/CE values up to 999 should be represented as four digits. For exmaple, **From** 0047 **to** 0998.

Select further Facets (or another instance of the same Facet if you wish to search on multiple values for the same Node) as required.

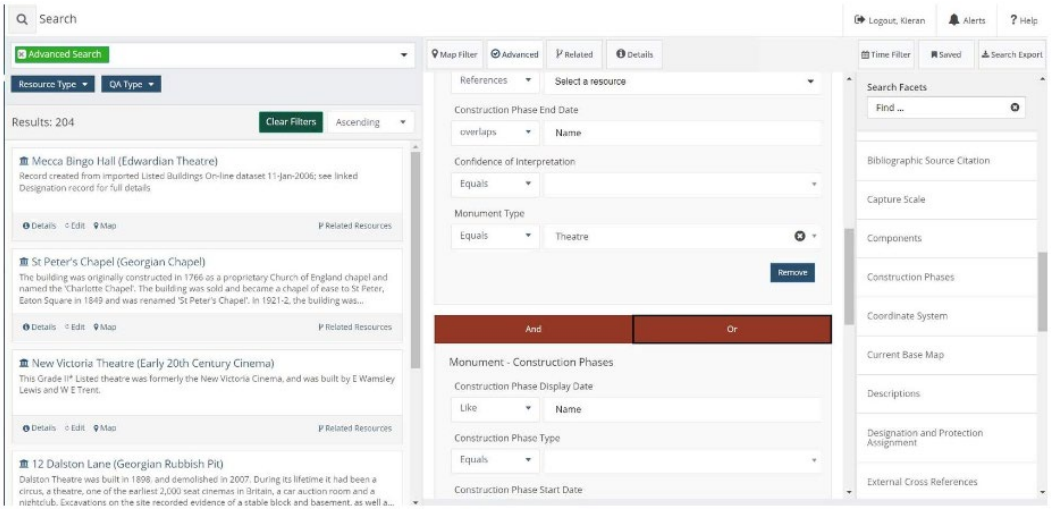
As each further Facet is selected, the new query card opens below the existing card. The two cards are separated by a bar containing two query operators: **And** and **Or**.



These enable the user to define the relationship between the selected search parameters. The default value is *And*, which means the search will retrieve records containing both specified parameters. By selecting *Or*, the user will be searching for all records where instances of both parameters occur, even where they are not both in the same record. This can be useful if you wish to search for multiple values that occur in the same node (for example, *Monument Type* = *Theatre* **OR** *Monument Type* = *Cinema*).

The application will filter the data each time you add a search parameter.

Results will appear in the panel on the left of the screen.

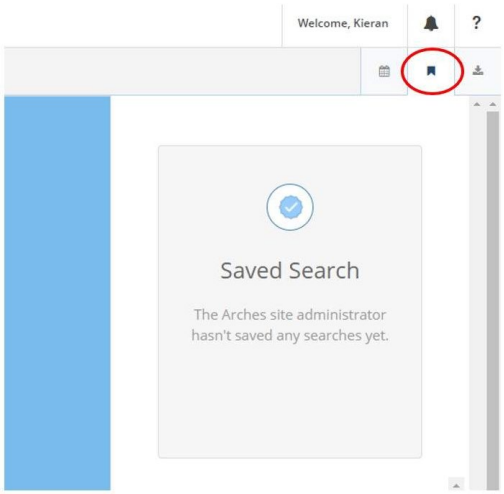


To remove one of the search cards, select the **Remove** button at the bottom right-hand corner.

Before starting a fresh search, make sure you remove the *Advanced search* filter from the Quick search field at the top-left of the search interface.

Saved Searches

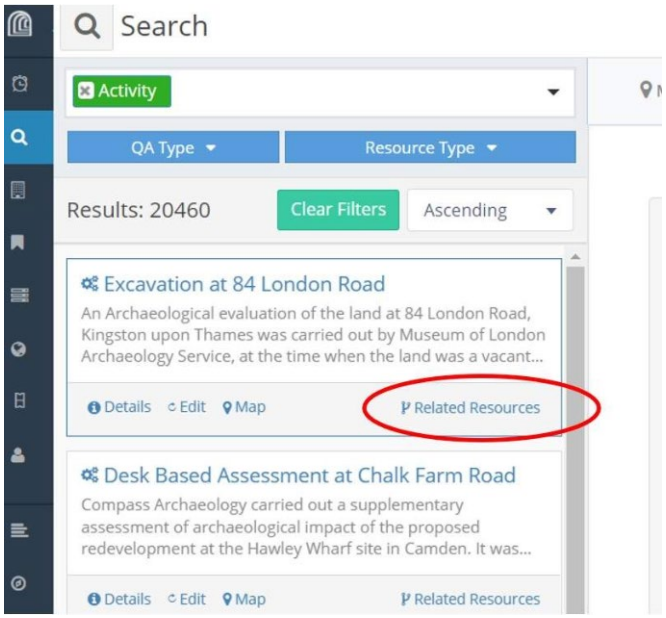
Saved searches allow the user to view existing queries that have been prepared and made available by a system administrator. These might be searches such as complex audit queries that need to be executed on a regular basis. Selecting the search will retrieve a new, up-to-date set of results.

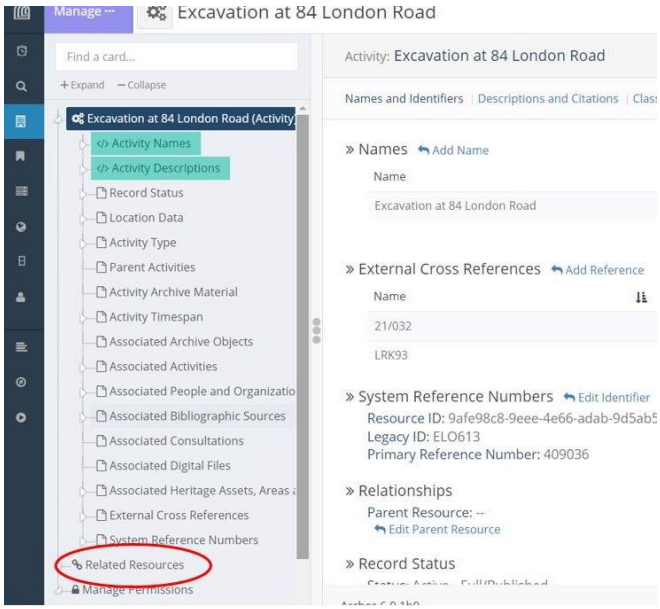


Select the *Saved Searches* icon on the right of the screen and a panel will open displaying a list of existing searches shared by the system administrator. Select the required search to retrieve results.

Related Resources

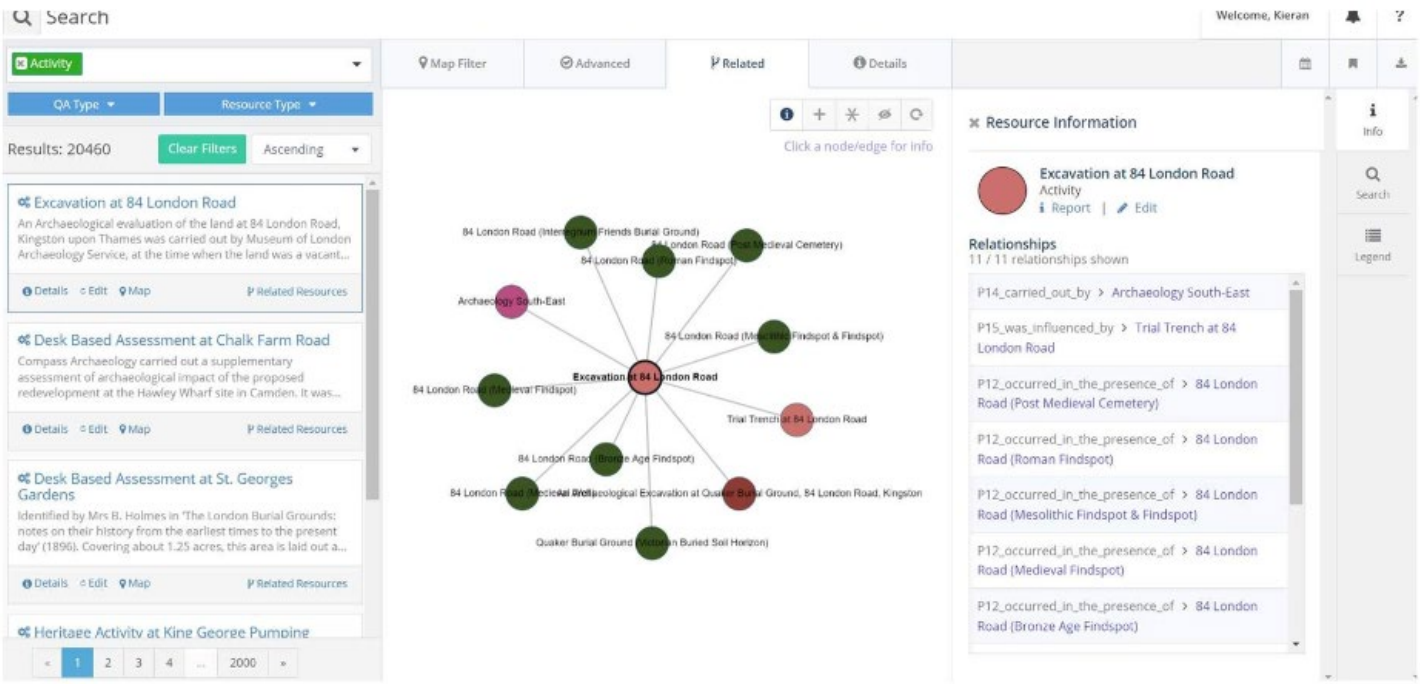
Within Arches, the relationships between Resources (for example, a Monument may be associated with another Monument, an Activity, several Bibliographic Sources, People and Organizations etc.) can be viewed and explored by means of a graphical interface. This interface can be viewed by selecting the *Related Resources* link either in the Search Results panel for each Resource, or in the Resource Manager tree view whilst viewing or editing a Resource.

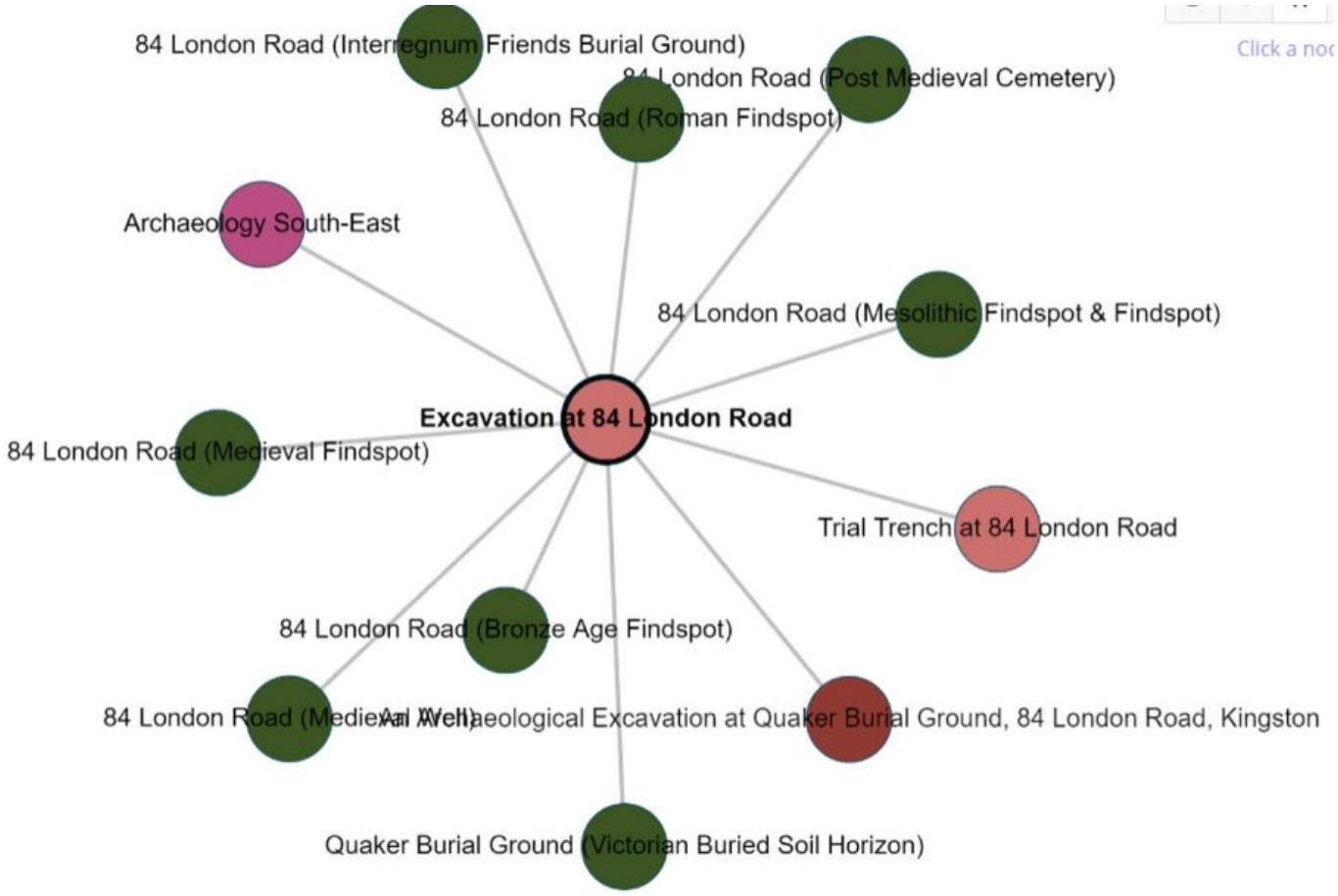




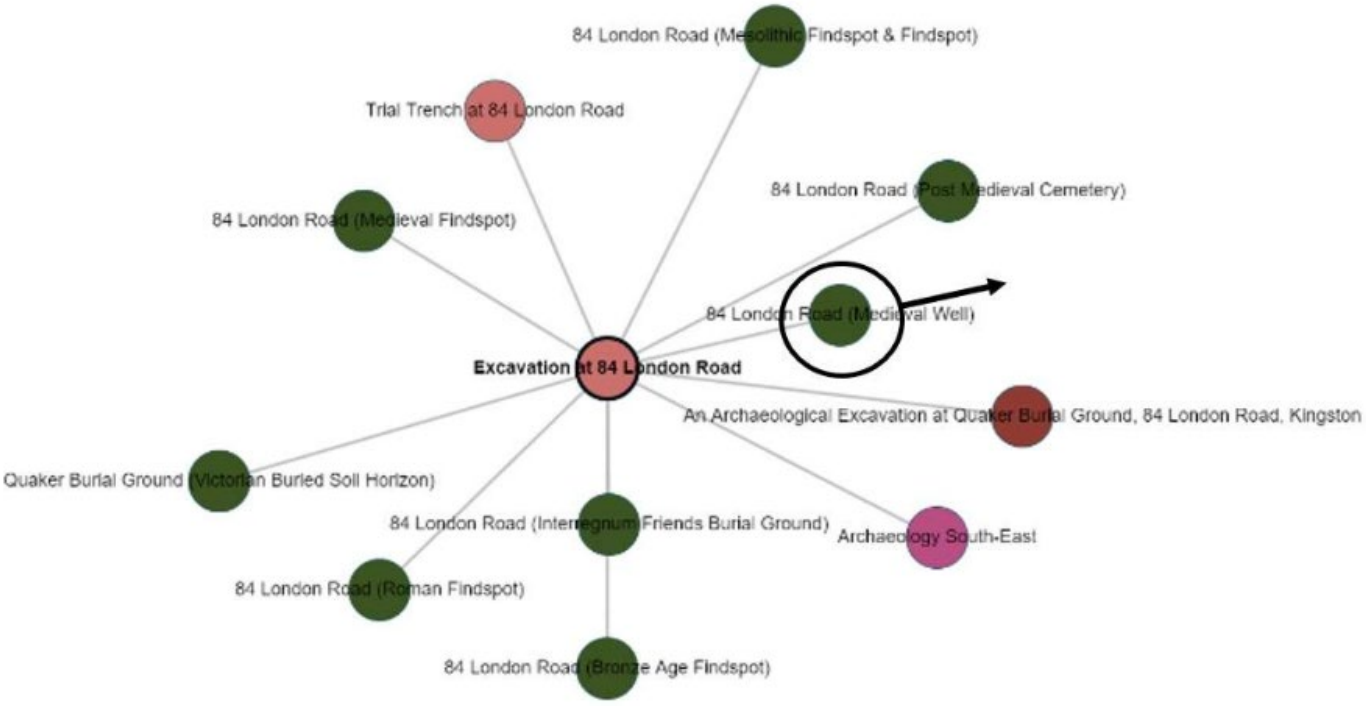
Selecting *Related Resources* will open a panel containing a graphical display representing the Resource and its related Resources, which are colour-coded to represent the different Resource

Types (For example, Green = Monument; Brown = Bibliographic Source; Pink = Organization etc.). As well as being represented graphically, an Info panel will open listing the associated Resources and stating the nature of the association between the Resources.

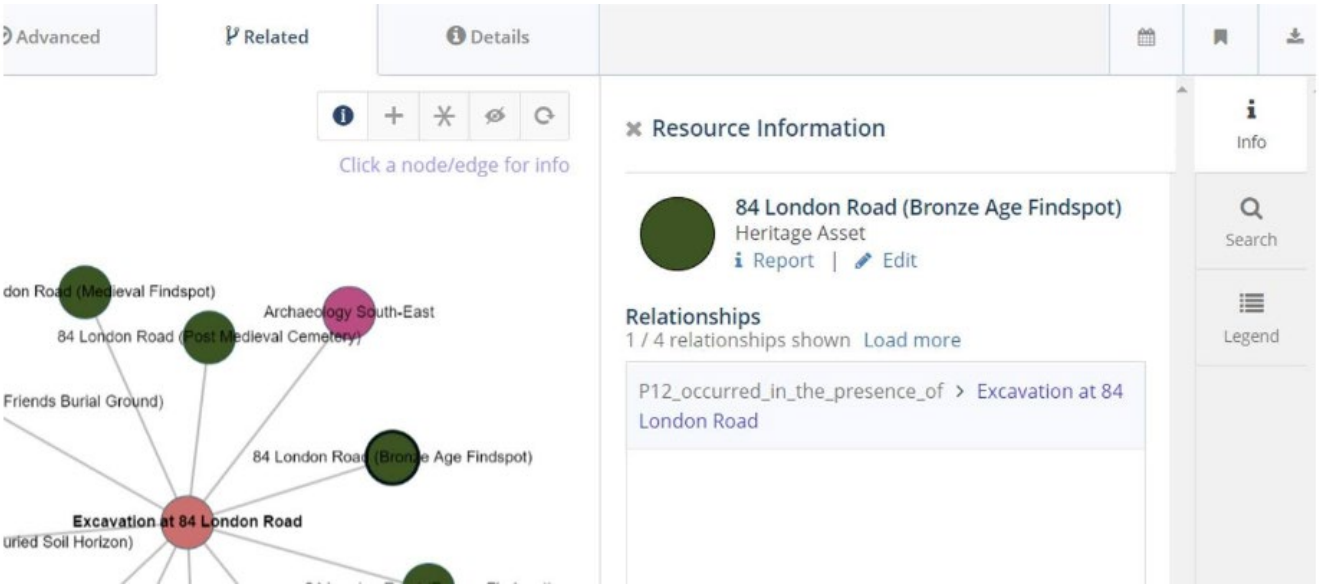




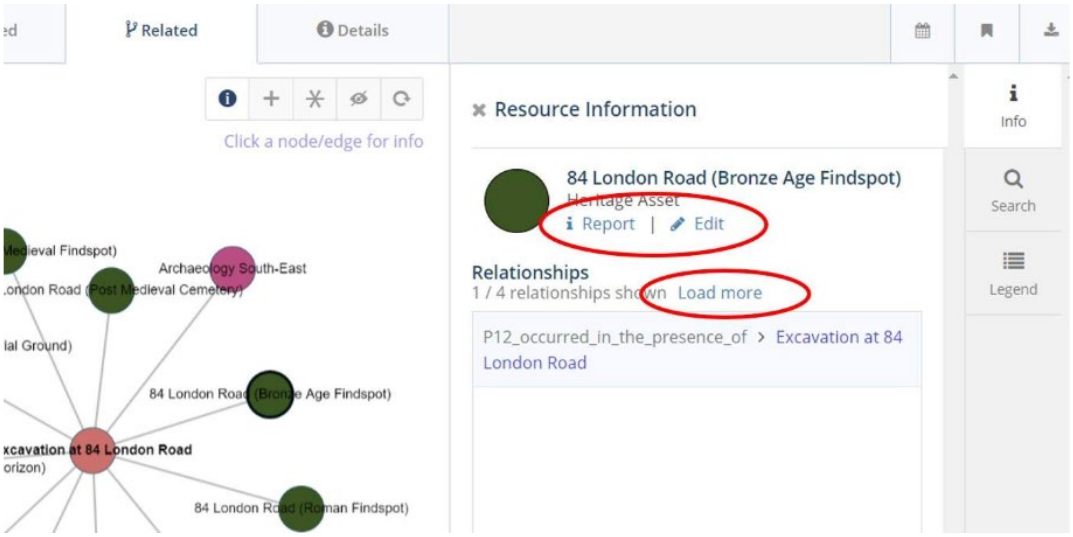
For greater clarity where Resource names may overlap, or a very large number of resources are represented, the elements of the graphical interface can be re-arranged by selecting them with your cursor and dragging them to a new location.



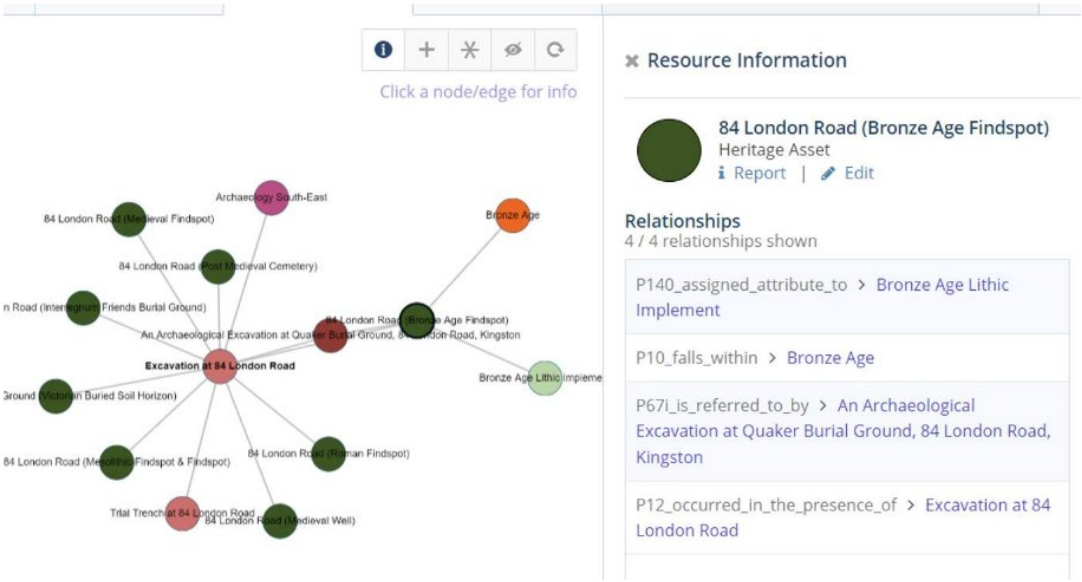
Any of the associated resources can be selected, either via the graphical interface or from the list in the Info panel.



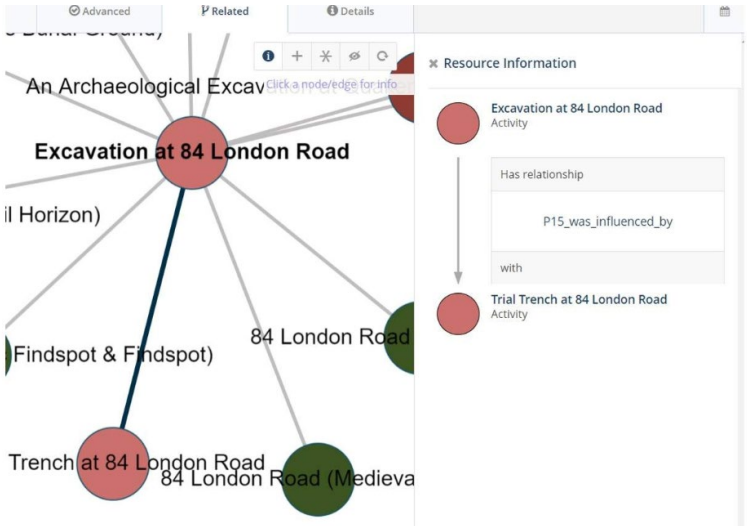
Selecting a Resource will give you the option to view a **Report** for the selected Resource, or open the Resource Manager to **Edit** the Resource. In Addition to displaying the relationship with the original Resource, the info panel will display how many other relationships this particular Resource has.



Selecting the **Load More** option will add these additional relationships to the graphical display.



Selecting one of the Connectors between Resources will display the specific relationship represented in the *Info* panel.



There are a number of tools available at the top of the display to facilitate further interaction with the graphical interface. Note: When selected, each tool remains active until an alternative is selected.

The **Info** icon is set as default, activating the contents of the *Info* panel when a Resource or Connector is selected.

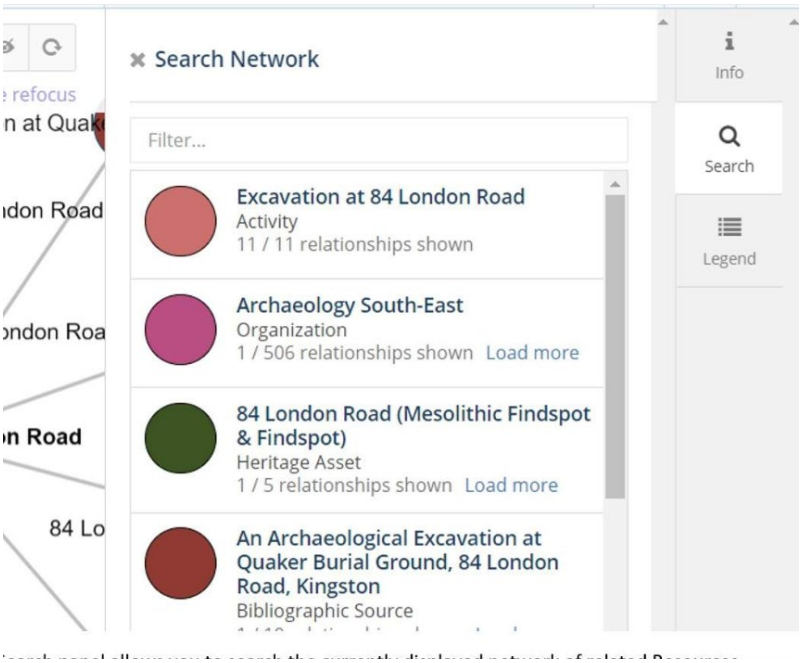
The **Show More Relationships** icon, when selected, allows the user to then select one of the Resources in the display to add their additional relationships to the graphical interface.

The **Refocus** icon, when selected, allows the user to select a Resource and re-set the graphical interface to display only those relationships directly associated with it.

The **Remove** icon, when selected, allows the user to select a Resource and remove it from the graphical interface. NOTE: This only removes the Resource from the display and does not edit the relationship between Resources.

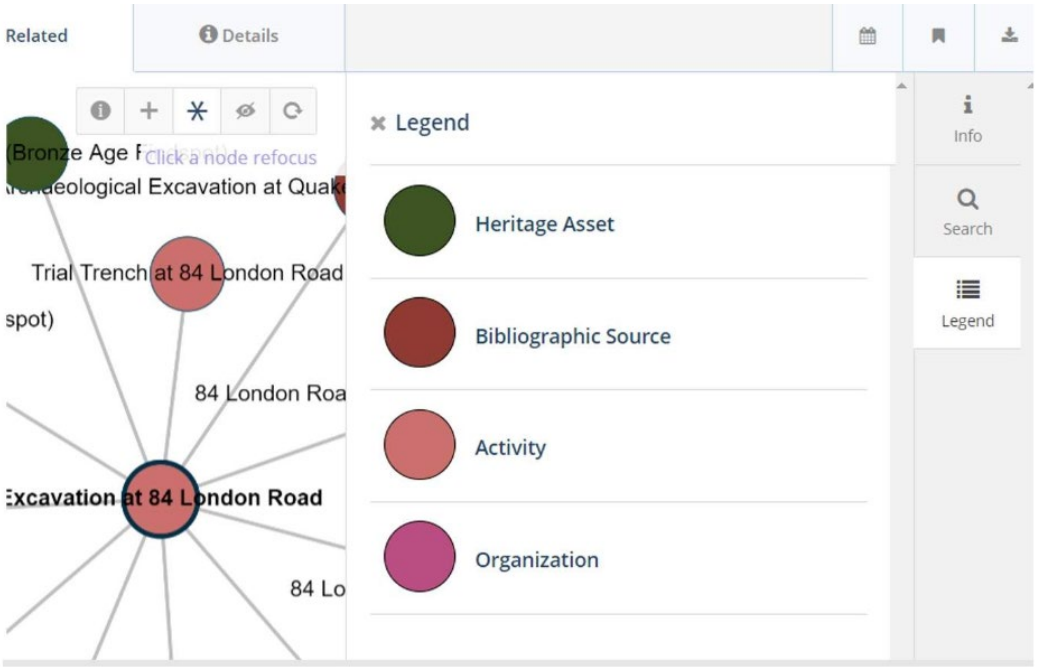
Refresh/Reload the graphical interface.

In addition to the tool bar at the top-right of the display, there are options available on the right of the screen. The *Info* panel opens automatically when a Resource or Connector is selected.



The *Search* panel allows you to search the currently displayed network of related Resources.

The *Legend* provides a key to the colour-coded resources currently represented in the graphical interface.



For further information about Arches, its origins, development and user community, visit the Arches project website at this URL.

https://www.archesproject.org/